Lectures
ON
SOME POINTS RELATING TO INJURIES TO THE HEAD.

Delivered at the Royal College of Surgeons,

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LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—I would now direct your attention to other evidences of fracture of the base of the skull, the escape of blood from the seat of fracture, and its appearance under the conjunctiva or over the mastoid process. An effusion of blood into the cellular tissue of the orbit is one sign of the presence of a fracture of the anterior fossa of the base of the skull. This effusion of blood may be limited to the eyelids at first, and then spread to the ocular conjunctiva; it may take place into the back of the orbit, and then spread forwards, only showing itself in the conjunctiva after the lapse of some hours or days, and then spread to the lids; it may be small in quantity, or sufficient to produce exophthalmos. The value of orbital extravasation as a sign of fracture is largely dependent on the question of its position (subconjunctival or not) and the quantity in which it presents. Other signs, such as epistaxis from the nostril of the side on which the fracture is, and the position of the injured part must be considered. Most are familiar with the appearance of the eye when there is this hæmorrhage under the ocular conjunctiva; in extreme cases it forms an elevated brownish-red circle, which encloses the cornea, and contrasts strongly with the colour of the iris of the patient. Usually disappearing in the course of a fortnight or so, it may last a long time, the blood not being absorbed for weeks; I have watched its gradual disappearance over a period of from six to seven weeks. In four cases, all of which recovered, there was much protrusion of the eye on admission, and to an extent sufficient to interfere with the action of the ocular muscles. In one case, that of a man of twenty-five, there was slight proptosis on admission; next day there was more marked but still moderate protrusion of the eyeball, which was displaced downwards and towards the middle line, the movements being limited in every direction, chiefly outwards. There was no ophthalmoscopic change. On the third day there was considerable subconjunctival ecchymosis. In sixteen patients there was orbital effusion in the lids when they came in, which subsequently spread to the conjunctiva. In four subconjunctival ecchymosis appeared on the second day, in three on the third, and in one on the sixth. Of the fatal cases, ecchymosis of the conjunctiva was not an invariable symptom, for in two out of fourteen there was none, the fracture being correctly diagnosed by the severe epistaxis, and in one, where the lesser wing of the sphenoid was splintered, the hæmorrhage did not show in the conjunctiva for at least ten hours after the injury. Again, in the case in which the anterior clinoid process was the only part of the base broken, contusion of the lids and extravasation in the conjunctiva were evident from the first.

In fractures of the malar and superior maxillary bones blood may be extravasated into the lids and under the conjunctiva; this is a rare occurrence which might lead to error in diagnosis. Mr. Holmes[1] has recorded a case. Another sign of fracture of the base of the skull is the appearance of extravasated blood in the mastoid region after an injury to the head. I must ask you to consider this sign somewhat fully, for I consider it, under certain circumstances, to be a most important indication that the posterior fossa of the skull is the seat of the fracture. Sir Prescott Hewett writes: "Extravasation of blood, and consequent discolouration of the skin, appearing in the mastoid region some hours after a severe injury to the head, may lead to the suspicion of a fracture involving the posterior part of the base; and all the more valuable will this sign become if the injury did not bear directly upon this region, and especially if it bore upon the opposite side of the head."[2] Observations on this subject lead me to the following conclusions with regard to "mastoid ecchymosis." That it appears, in the first place, in front of the apex of the mastoid process. That it often spreads upwards over the mastoid in a line, slightly curved, and with the convexity backwards, its direction being approximately that of the outline of the external ear, from which it is distant half to three-quarters of an inch. At the end of three or four days after its appearance, it diffuses itself forwards and backwards, chiefly, however, in the latter direction, being most marked in the original line, and then gradually disappears; that it usually shows from the third to the fourth day after the injury, but its appearance may be delayed until the twelfth or fourteenth day. If the injury which is in the occipital region is to the right of the middle line, the ecchymosis will appear on that side over the anterior part of the apex of the mastoid process; that it may be accompanied with œdema and tenderness over the process; that the duration of the time which elapses between the receipt of the injury and the appearance of the extravasation is to some extent an indication of the distance of the fracture from the process, the blood being compelled to travel by a certain anatomical route in order to reach the surface; that unless search be made for the extravasation, it is very apt to be overlooked, as the ear conceals it, especially if the ear is large or the head of the patient has not been shaved. Should the fracture have taken place in the middle line of the occipital bone, or should there be two or more lines of fracture diverging towards the foramen magnum from a point in the middle line, the extravasation may appear on both sides and at a varying interval.

The following examples illustrate these statements. A man, aged forty-one, fell and received a scalp wound over the posterior part of the left parietal bone. He was admitted into hospital unconscious, bleeding freely from the ears and nose. On the fourth day there was ecchymosis behind the left ear, from which flowed clear watery fluid. A woman aged fifty, knocked down by a hansom cab, had considerable hæmorrhage from the right ear, which ceased during the first night. On the fourth day there was well-marked ecchymosis over the right mastoid process. A man, aged twenty-four, thrown from the driving seat of a van, was admitted into the wards unconscious, with very free hæmorrhage from the right ear. On the third day there was an extravasation of blood over the mastoid continuous in a less degree down the side of the neck. Over this area there was much tenderness. This extravasation disappeared in sixteen days, but the tenderness remained for some time longer. A man, aged forty, was knocked down, and struck the back of his head on the pavement. On the sixth day there was considerable discolouration over the occipital bone and behind the ear, and he threw his arms about when touched in that situation. A man aged thirty-two was admitted into hospital on the fifth day after a fall from a loft, with marked ecchymosis in the mastoid region, and a small scalp wound in the posterior parietal region on the same side. A youth aged seventeen fell fifteen feet, and was found to be unconscious, and with a jagged wound of the scalp on the right side. On the fifth day contusion was seen behind the right ear. A man aged forty-seven was picked up insensible after having been run over in the street. On the seventh day there was pre-mastoid ecchymosis on the left side, but it was not until the fourteenth day that it appeared in front of the right mastoid process. A man aged thirty-seven received a blow from a man's fist and fell on the back of his head on the pavement, and was brought to the hospital on the third day. There was then ecchymosis over the right mastoid process, which, with other symptoms, was considered to indicate a fracture in the posterior fossa on the right side. A year later he was admitted into St. Thomas's under the care of Dr. Bristowe with epilepsy, and died. At the post-mortem examination the diagnosis was proved to be correct. A man aged forty-seven fell seven feet from a wall, producing a superficial scalp wound just behind the right parietal bone. On the third day some ecchymosis appeared over the right mastoid process. A boy, aged seven, fell down a stairway, receiving a small wound in the left occipital region. On

[1] Brit. Med. Jour., 1885, p. 967.

[2] Holmes: A System of Surgery, edited by Hulke, vol. i., p. 591.

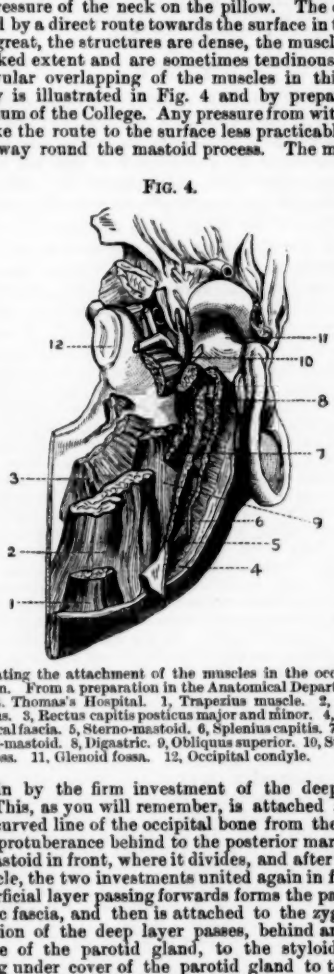
the seventh day some ecchymosis appeared over the left mastoid process. A boy, aged twelve, fell backwards off a brick wall about five feet in height on concrete pavement. A hæmatoma was found in the left occipital region. On the twelfth day some bruising appeared over the left mastoid, especially in the region of the apex of that process. A man, aged twenty-one, fell off a cart, his head striking the ground, and had hæmorrhage from the ear. There was no wound of the scalp; but on the fourth day, when his head was shaved, bruising over the back of the head was found, and on the fifth day ecchymosis over the right mastoid process, which appeared at the very tip in the first instance. A boy aged seven, who had fallen down some stone steps, presented ecchymosis behind the left ear on the third morning. A man aged thirty-one fell a distance of seven feet, and complained of tenderness over the mastoid process the same evening; this continued, but it was only on the third morning that ecchymosis appeared over the right mastoid process, just behind the ear, with a little puffiness over the process. Eight days later a note was made to the effect that the bruising over the right mastoid process which followed the outline of the external ear was beginning to fade, though the staining over its anterior border was still well marked, and there was slight œdema on deep pressure, but no longer definite tenderness. A woman aged fifty-five was knocked down in the street by a cab. On the fifth day there was a well-marked swelling about the position of the posterior superior angle of the left parietal, and ecchymosis was noticed over the left mastoid process. This discolouration was visible for a period of four weeks, and when it had disappeared there was still some tenderness. A man aged thirty-seven fell backwards from a cart on a macadamised road. There was hæmorrhage from the nose, mouth, and left ear. On the fourth day ecchymosis was manifest over the mastoid, commencing to extend backwards. A policeman aged forty-four was thrown violently from a light cart on a stone pavement. Bleeding from the nose and both ears continued for some hours. On the third day there was bruising visible over the left mastoid process.

A summary of these cases gives the following result: that when, in patients with supposed fracture of the posterior fossa, ecchymosis was first *perceived*, it was on the third day in six cases, on the fourth day in three, on the fifth day in four, on the sixth day in one, on the seventh day in two, and on the twelfth day in one instance. Whilst in one case it appeared also on the opposite side on the fourteenth day. I am careful to say *perceived*, for in more than one instance it had probably been overlooked for a time. I have already drawn attention to one case in which a necropsy proved that there had been a fracture of the posterior fossa, of which this extravasation had been the only external sign. What is the evidence afforded by the examination of the fatal cases in which mastoid ecchymosis was observed during life?

An omnibus driver aged sixty-two, who had fallen on his head on the kerb when mounting to the driver's seat, died nine days later from delirium tremens. On the fifth day ecchymosis was noticed over the right mastoid process. At the post-mortem examination Dr. Sharkey found two fractures running from the occipital protuberance obliquely downwards on the right and left. That on the right side was by far the most severe, and ran across the groove of the lateral sinus, and across the right petrous bone and middle ear. The fracture on the left only amounted to a crack which did not allow of movement of the bones on each side of it, and stopped short of the temporal bone. A boy aged one year and nine months, who presented, in addition to other symptoms, bruising over the tip of the left mastoid process on the third day, died fourteen days after the injury, and Dr. Sharkey reported as a result of the examination: "The left occipital bone was divided by a fracture which ran from the margin of the foramen magnum along the left side to its junction with the parietal; it did not quite go through the margin of the foramen magnum," &c. The fracture on the left side in the omnibus driver, whose case is alluded to above, did not give rise to extravasation over the mastoid process, although he lived nine days; it only amounted to a mere crack. That it is necessary for the production of this sign that there should be a complete fracture, one penetrating both tables, was also shown in a patient aged forty, who died from meningitis after an injury to the posterior part of the skull. He was supposed from other symptoms to have received a fracture of the occipital bone, but no mastoid extravasation developed. At the post-mortem examination there was a fissured fracture extending across the left posterior fossa to the middle fossa of the same side, but it only involved the inner table of the bone.

The reason why ecchymosis should appear in the situation of the mastoid apex is capable of an anatomical explanation. When a fracture extends through the occipital bone towards the foramen magnum there is an extravasation of blood along the line of fracture usually between the dura mater and the bone, as well as into the muscles and intermuscular planes across which the fracture runs. This extravasation, which varies in quantity, gradually makes its way along the lines of least resistance towards the mastoid process, in this instance the planes of cellular tissue between the muscles aided in its course by the tonic contraction of the muscles of the part, by movements of the head, and to some extent by the pressure of the neck on the pillow. The difficulties presented by a direct route towards the surface in this region are very great, the structures are dense, the muscles overlap to a marked extent and are sometimes tendinous in origin. The valvular overlapping of the muscles in this part of the body is illustrated in Fig. 4 and by preparations in the Museum of the College. Any pressure from within would only make the route to the surface less practicable, excepting the way round the mastoid process. The muscles are

FIG. 4.



Illustrating the attachment of the muscles in the occipital region. From a preparation in the Anatomical Department of St. Thomas's Hospital. 1, Trapezius muscle. 2, Complexus. 3, Rectus capitis posticus major and minor. 4, Deep cervical fascia. 5, Sterno-mastoid. 6, Splenius capitis. 7, Trachelo-mastoid. 8, Digastric. 9, Obliquus superior. 10, Styloid process. 11, Glenoid fossa. 12, Occipital condyle.

covered in by the firm investment of the deep cervical fascia. This, as you will remember, is attached along the superior curved line of the occipital bone from the external occipital protuberance behind to the posterior margin of the sterno-mastoid in front, where it divides, and after enclosing that muscle, the two investments united again in front of it. The superficial layer passing forwards forms the parotid and masseteric fascia, and then is attached to the zygoma. A prolongation of the deep layer passes, behind and to the inner side of the parotid gland, to the styloid process. Ascending under cover of the parotid gland to the groove between the cartilage of the ear and the mastoid process is the posterior auricular artery, and it appears to me that it is along this vessel that the extravasation makes its way, probably aided by its pulsation. This would account for the appearance of the ecchymosis in front of the apex of the mastoid process and the course which it takes afterwards over the process.

Mr. E. C. Stabb, the senior resident medical officer at the Royal Free Hospital, has with me and in my absence kindly made a series of experiments on the dead subject to test the truth of these statements. The object was to find out the direction in which a fluid would spread when injected amongst the muscles in the occipital region. The fluid used was a solution of Berlin blue with glycerine and

water, and the injection was made by means of a syringe and cannula. In order to make the condition more closely approximate that which obtains after a recent linear fracture of the posterior fossa, the cannula was passed towards the foramen magnum and the injection forced in as the instrument was withdrawn; in all cases the puncture was closed, and in some pressure was made over the occipital region by means of an elastic bandage, which was removed several hours afterwards when the region was examined. In six cases (aged eleven months, eighteen, thirty-six, thirty-nine, forty-four, and sixty-six years respectively) the solution was injected deeply, about an inch and a half midway between the external occipital protuberance and the mastoid process. In all these experiments the tendency of the fluid was to pass forwards and downwards in the intermuscular planes, reaching beneath the sterno-mastoid muscle as far as its anterior border, and in several cases further forwards along the digastric and stylo-hyoid muscles. In one instance, that of the child aged eleven months, it passed nearly down to the clavicle beneath the sterno-mastoid. In no case did it pass through the deep fascia. In four cases (aged nineteen, thirty-three, fifty-nine, and sixty-nine respectively) the solution was injected about half to three-quarters of an inch behind the mastoid process. In a very emaciated subject aged sixty-nine, the fluid appeared superficial to the deep fascia just below and in front of the apex of the mastoid process, but not in any quantity, and, so far as could be seen, not in connexion with any vessel. The deep fascia was very thin. A better marked result was obtained in the man aged nineteen, where the fluid was found distinctly passing through the deep fascia and running upwards with the posterior auricular vessels. It had also passed forwards beneath the parotid gland. These experiments, then, go far to confirm my theory as to the route taken by extravasations in the suboccipital region in their progress to the surface, especially when we consider the altered conditions of the tissues which exist after death, the different character of the fluid, the greater resistance to diffusion of fluids, and the shorter time necessarily allowed for the diffusion. The probability is, then, that as the blood extravasated about the fracture is dispersed, it is arrested in its progress across the middle line by the dense fibrous structures met with there, but is gradually forced outwards to the submastoid region, and continuing its course meets with the posterior auricular artery which guides it to the surface. The reason why the occipital artery, which is encountered earlier by some of the extravasated blood making its way towards the mastoid process, does not guide the extravasation through the fascia and muscles to the surface is probably explained by its oblique course with regard to the muscles, any increase of tension under the fascia of the region making the muscles act in a valve-like manner and pressing them against the vessel.

Extravasation of blood into the neck is said to be an occasional cause of a discolouration of the integuments over that region and an aid to diagnosis in cases of fractured base; but, as in the case of the "black eye," it is more frequently the result of direct injury and bruising of the part where it manifests itself; and it must be borne in mind that ecchymosis about the mastoid process will occasionally be met with under similar circumstances. I was recently asked to see a case of supposed fracture of the posterior fossa of the base of the skull in which this symptom was present; there was, however, no difficulty in discriminating between the two conditions, for the discolouration had appeared soon after the infliction of the injury, was not limited to the mastoid region or more intense in that part, and was apparent also over the ear and the temporal region.

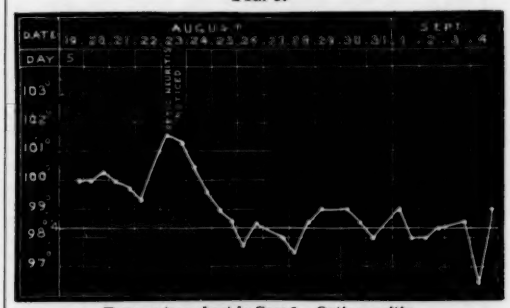
THE OCCURRENCE OF OPTIC NEURITIS IN HEAD INJURIES.

For many years it has been known that injuries to the head are occasionally followed by optic neuritis, and isolated evidences of this fact are to be met with in our literature. But no systematic or continued investigation was on record in this country previously to the communications of Mr. Edmunds and Mr. Lawford to the Ophthalmological Society on that subject. These gentlemen have investigated this question from a clinical as well as from a pathological aspect, and in their last paper, which was read in July, 1887, the result of their investigations in twenty-four cases is given, with the conclusions to which they have come.[3] I do not think it necessary for our present purpose to consider the cases brought forward by them in which optic neuritis was *not* found, either on ophthalmoscopic examination during life or on microscopical examination of the optic nerves after their removal from the body after death. Frequently during the progress of a patient towards recovery after an injury to the head—often, too, when the tendency was to a fatal termination—repeated examinations with the ophthalmoscope have revealed no change in the condition of the discs, and this statement applies to all kinds of head injury from slight concussion to compound comminuted fractures of the skull with wounding of the brain substance. Then, again, it is well to exclude those in which injury to the frontal region was followed by signs of inflammation in the eye of the corresponding side, inflammation which not infrequently passed on to atrophy of the disc and permanent blindness, as cases, which I will mention later, prove. Two of the cases given by Messrs. Edmunds and Lawford[4] come under this heading, and twelve under the former. We have, then, ten remaining from their series for consideration, and to these I add seventeen which I have observed since they made their communication to the Ophthalmological Society. It would perhaps be as well to mention here that their investigations were made on cases which I was enabled to examine, and that the majority of those, the notes of which I propose to read presently, were also examined by them, by Mr. Nettleship, or by the ophthalmic assistant at St. Thomas's Hospital, with the exception of Case 8, which Mr. Mackinlay kindly saw. These seventeen cases are as follows: Nine recoveries, in which the base was supposed to have been fractured; three fatal cases, in two of which a fracture of the base was proved at the post-mortem examination, and in one of which a fracture of the middle fossa was diagnosed, but a post-mortem examination was not obtained; four recoveries from concussion of the brain, in which optic neuritis was found; and one fatal case of bullet wound of the brain, in which there was a second attack of optic neuritis.

I will now read short notes of the cases in which optic neuritis was present, and in which recovery from the head injury as well as from the neuritis ensued. In the majority of them examination of the urine proved the absence of albumen, and no evidence of syphilis could be obtained.

CASE 1.—A butcher aged thirty-two was under the care of Mr. Clutton in St. Thomas's Hospital from Aug. 19th to Sept. 10th, 1887. He had fallen from a ladder ten feet high four days before. He suffered from very severe headache, and there was a mark of injury over the back of the head, with a slight wound. On the fifth day after admission the

FIG. 5.



Temperature chart in Case 1. Optic neuritis.

edges of both optic discs were noted as hazy and obscured; veins full; tortuosity of some smaller vessels at the edges of the optic discs. On the nineteenth day Mr. Nettleship reported that both optic discs were hazy; veins rather full; changes more marked in the left, where they were conclusive of papillitis; in the right, taken alone, they were of doubtful meaning.

CASE 2.—A man aged twenty-four was under the care of Sir Wm. Mac Cormac from April 8th to May 8th, 1887. He had been pitched on his head from a cart. There was profuse and prolonged bleeding from the ears, and he was unconscious for some hours. Next day he was restless, and fighting to get out of bed, and at night delirious, with a temperature of 104°; he was very irritable at times. On the

[3] Trans. Ophth. Soc., vol. vii., p. 208.

[4] Ibid., vol. v.

eighth day Mr. Robert Nairne found both discs slightly hazy, but without enlargement of vessels. On the eleventh day the left disc was more clearly defined, but examination was difficult, as the patient was very irritable, and resisted.

CASE 3.—A greengrocer aged forty-seven was under the care of Mr. Mackellar from Sept. 29th to Oct. 20th, 1887. He had been run over, and continued unconscious for some time. On recovery he was drowsy, and complained of headache. Mr. Wingfield-Roll, who examined the eyes, reported on the sixth day that the appearances

FIG. 6.

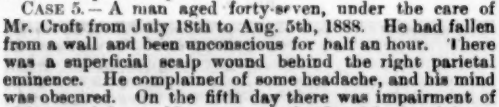
Temperature chart in Case 3. Optic neuritis.

were highly suggestive of optic neuritis; both optic discs were rather hazy, with slight swelling, especially in the right; the veins were full; there were no hæmorrhages; on the eleventh day the condition was more marked.

CASE 4.—A man aged thirty-seven, under the care of Mr. Mackellar from July 29th to Sept. 10th, 1888. He was admitted in a drowsy condition, with headache, on the third day after having been knocked down, and sustained injury to his head. On the eighth day after the accident both optic discs were swollen, and their margins could not be made out; the vessels over the discs were very indistinct, but swollen over the adjoining part of the retina; and on the twenty-second day Mr. Lawford, who examined the patient, reported there was no swelling of the discs, but the vessels were all bordered by white lines, and the tissue over the surface was somewhat opaque. The appearances would quite support the diagnosis of an attack of optic neuritis some time previously.

CASE 5.—A man aged forty-seven, under the care of Mr. Croft from July 18th to Aug. 5th, 1888. He had fallen from a wall and been unconscious for half an hour. There was a superficial scalp wound behind the right parietal eminence. He complained of some headache, and his mind was obscured. On the fifth day there was impairment of vision, and he could not see so clearly with the right as with the left eye. In the right eye the vessels were

FIG. 7.



Temperature chart in Case 7. Optic neuritis.

swollen and tortuous, and the disc very indistinct; the left disc was not quite clearly defined, but otherwise it appeared normal. On the ninth day there was still well-marked optic neuritis.

CASE 6.—A boy aged twelve, under the care of Mr. Mackellar from Dec. 20th, 1887, to Feb. 9th, 1888. He had fallen from a brick wall about five feet in height on concrete pavement. Was supposed to have been unconscious for an hour. Symptoms of cerebral irritation. On the fourteenth day he was still very drowsy with headache, and examination of the eyes by Mr. Lawford showed the presence of optic neuritis, moderate swelling of the discs, with much streaky haze, veins full and bending, but no hæmorrhages.

CASE 7.—A woman aged twenty-three, under the care of Mr. Mackellar from the 8th to the 25th of July, 1888. Was admitted unconscious with hæmorrhage from the right ear and mouth, and subconjunctival ecchymosis of the right eye. Afterwards she was noisy and restless. On the ninth day the eyes examined with the ophthalmoscope revealed haziness of the discs, and the margins were ill defined. (See Fig. 7.)

CASE 8.—A woman aged fifty-five, under my care at the Royal Free Hospital from Dec. 24th, 1888, to Feb. 13th, 1889. She had been knocked down in the street; she afterwards suffered from headache and drowsiness. The eyes were examined on more than one occasion by Mr. Mackinlay, who reported on the twenty-sixth day that there was undoubted optic neuritis in the right eye. The fundus of the left eye could not be examined on account of the presence of cataract. Nine days later the inflammation was diminishing.

CASE 9.—In this case, that of a carpenter aged twenty-two, who was supposed to have received a fracture involving the anterior and middle fossæ of the base, slight haze of the disc was noticed on the fifth day, but Mr. R. Nairne, who also examined the eyes, did not think it sufficient to indicate the presence of optic neuritis.

Three Cases, in which this Symptom was present in Fractures of the Base, which terminated fatally.

CASE 10.—An omnibus-driver aged sixty-two, under the care of Sir Wm. MacCormac, who had fallen and received a scalp wound at the back of his head, presented symptoms of fracture in the posterior and middle fossæ of the base of the skull. On the sixth day there was commencing optic neuritis. He died on the tenth day with symptoms of delirium tremens. At the post-mortem examination there was great bruising of and hæmorrhage into the anterior parts of the brain. No meningitis was found.

CASE 11.—A leather-dresser aged forty, under the care of Mr. Sydney Jones from Feb. 2nd to 12th, 1886. Was admitted with very severe headache three days after a fall on the back of his head in the street. He became restless, and meningitis developed. On the tenth day after the accident Mr. Johnstone noted some haze about the optic discs, especially the right, but the man was very irritable, and they were not well seen. At the post-mortem examination there was well-marked basal meningitis, and a fissure in the posterior fossa of the skull extending forwards to the petrous bone.

CASE 12.—A boy aged seven, under the care of Mr. W. Anderson from Aug. 26th to Sept. 5th, 1886. He had been knocked down and run over in the street, and presented signs of fracture in the middle fossa of the base. Meningitis with hemiplegia developed, and on the seventh day Mr. Lawford reported optic neuritis in both eyes. The patient died three days later, but an examination of the body could not be obtained.

Cases of Concussion, Four in number, in which Optic Neuritis developed.

CASE 13.—A man aged forty-five, under the care of Mr. Croft from Sept. 14th to Oct. 12th, 1887. He was standing on the edge of a crate, which turned over and fell on him. He became unconscious, and was admitted with a contusion on the right side of the head and swelling of the right shoulder, stertor with blowing respiration, a small rapid pulse of 72, and the pupils equally dilated and not acting to light. Two days later he was more conscious, and the respiration was quieter. On the seventeenth day, on ophthalmoscopic examination, the left optic disc was slightly swollen and hazy at the margin, with bending of the vessels; one vessel was obscured by new tissue. The right optic disc presented appearances of a similar character, but they were less marked. The highest temperature was 99·6°.

CASE 14.—A tramcar conductor aged twenty-six was under the care of Mr. Mackellar from July 8th to the 29th, 1888. He had fallen off the car steps on his head. He never became unconscious, but was sick soon afterwards. When admitted after a long walk he appeared dazed. There was a hæmatoma over the vertex and right temple; pupils normal. He vomited from time to time during the remainder of the

day and suffered from headache. On the following day there was a slight rise of temperature to 100·2°; the sickness had passed off, but there was still headache. On the seventh day there was much pain in the right temporal region, and the right pupil was the larger. On the tenth day both optic discs were found to be much swollen and hazy, and the retinal vessels were enlarged. In this case the temperature was generally over 99° and under 100° in the evening until the ninth day.

CASE 15.—A carman aged forty, under the care of Sir W. Mac Cormac from Oct. 25th to Dec. 15th, 1886. He had fallen from a cart and received a superficial scalp wound in the occipital region. Was suffering from shock on admission, then passed into a deep sleep, which gave rise to a drowsy condition, from which he was roused with difficulty. The temperature was frequently elevated, 100° to 102°, occasionally rising to 102·6°; and on the sixth day he had a severe convulsive seizure. Afterwards there were drowsiness and frontal headache. The fits continued at intervals until the tenth day, when they ceased. After this there was delirium, with sleeplessness and occasional fits. On the fourteenth day he was sensible again, complaining of headache, but was still violent at night. The evacuations were passed involuntarily. Was quite sensible on the twenty-fourth day, and then improvement continued. Mr. Nairne reported haziness of the discs, with dilatation and tortuosity of the vessels, on the sixth day. Mr. Lawford examined the eyes eighteen days later, and found slight but definite papillitis present.

CASE 16.—A gentleman aged thirty, who came under my care a week after falling on his head. There had been loss of consciousness for an hour or two, with vomiting. Since that time drowsiness and severe headache with intolerance of light, but no blindness. Examination of the discs showed well-marked swelling and haze about the tenth day. He was kept completely at rest. Under treatment the symptoms all rapidly subsided.

Bullet Wound of the Brain.

The following is a most interesting example of bullet wound of the brain:—

CASE 17.—A boy aged eleven was under the care of Mr. Mackellar from April 13th to Oct. 12th, 1887. There was a wound caused by a revolver bullet of small size, two inches above and an inch and a half in front of the left external auditory meatus. Two days after admission optic neuritis developed. Mr. R. Nairne reported: "Both discs slightly hazy and congested. The large vessels, both arteries, and veins dilated; all the small vessels running over the edge of the disc appear more evident than normal." On the third day he was trephined. On the sixth day Mr. Nairne noted more haze, with definite swelling of the discs on each side, especially at the lower edge. On the eighth day the swelling was more marked in the right eye; there were no hæmorrhages. On the eighteenth day still marked neuritis in both eyes; swelling not great, but more in the right than in the left. Much shot-silk appearance of retina and a few bright spots in the right yellow spot region. On the thirty-seventh day Mr. Wingfield-Roll reported that there was still slight haze, with moderate swelling; veins on both sides large and tortuous; and on August 8th, nearly four months after the injury, some streakiness about the optic discs, with a little haze of the retina surrounding them. One or two dots of black pigment near the optic discs, possibly the remains of hæmorrhages. More streakiness and haze in the right. Hernia cerebri developed after the operation to a considerable extent, but gradually subsided, and the patient went to a convalescent home. He was again in the hospital, under Mr. Mackellar's care, from Oct. 29th to Dec. 4th of the same year with traumatic epilepsy. Ophthalmoscopic examination showed the veins to be very tortuous near the discs, which were not pale. They had a good colour, but some streakiness at the edges; there was nothing further to indicate that there had been optic neuritis on any previous occasion. When he left he was very dull, and avoided the sunlight; had no fits or headache, but staggered occasionally in walking. He was again admitted about eight months after receipt of the injury, and died early in 1888, forty-one days later. He had suffered from fits, pain in the left side of the head, loss of power in the right arm, right facial paralysis, vomiting, and bulging of the scar. After admission Mr. Wingfield-Roll found moderate papillitis, with tortuosity and abrupt bending of the veins at the edges of the disc, obscured by streaky haze; changes less in the left eye. And two days later Mr. Nettleship reported "well-marked papillitis of each eye, with moderate steep swelling, without hæmorrhages." On the twenty-third day aspiration through the scar drew off a drachm of clear fluid; on the twenty-seventh Mr. Mackellar explored the brain, removing more bone. Hernia cerebri again developed, and an abscess cavity was incised. At the post-mortem examination there was a thick-walled abscess cavity in the posterior part of the left frontal convolution, extending into the white matter of the parietal and temporo-sphenoidal lobes and basal meningitis. The bullet was found in the white matter of the right frontal lobe low down, surrounded by apparently healthy white matter. The track made by the bullet to reach that situation could not be traced.

I have given this case more in detail than the others, as it is an example of neuritis affecting the optic nerves for a second time, when the first attack had been severe, but completely recovered from. It will be noticed that, although the inflammation was very marked in many of these cases, no hæmorrhages were at any time found by those who examined them, and in only one was there any complaint of blindness. Taking, then, the four cases of recovery from optic neuritis (that is, excluding the two cases in which one eye only was involved) and the two other cases which proved fatal, and in which evidence of inflammation of the nerves was present during life, we have a total of six from the series by Messrs. Edmunds and Lawford which we can compare with those which I have just read. I would not, however, have it thought that I am detracting from the value of their observations on the subject. This is not my intention. I am simply desirous of investigating the usefulness of this sign as an evidence of fracture of the base of the skull or injury to the base of the brain, and put on one side those cases which do not appear to assist in the elucidation of the question as to the importance of optic neuritis as a clinical sign.

I should like, however, before proceeding further, to refer to the results of the microscopical examinations made by Messrs. Edmunds and Lawford in four cases which proved fatal from the severity of the injury, and in which the base was involved. In two of them which were examined the patients had only lived twenty-four hours after the injury. The result is thus summarised: "In those four cases in which there was neuritis the changes observed with the microscope were, in one case, present throughout the whole length of the nerves, but confined to their surface (perineuritis), and in the remaining three cases the changes did not extend throughout the whole length of the nerve, but were only found at its proximal part, and in one of these three the hypernucleation was more marked at the surface of the nerve than in its interior."[5] The microscopical changes are well illustrated in their paper, and through the courtesy of Mr. Edmunds I have been enabled to examine the microscopical sections of the nerves from which the illustrations are taken. The change from the normal which is found consists in a considerable increase in the number of staining corpuscles seen in the sections, especially in the trabeculæ between the nerve bundles. Sections from one case show also the existence of fluid between the outer and inner nerve sheaths, and others from another case the presence of inflammation almost entirely limited to this space with but slight changes in the nerves themselves. It is evident, then, that the inflammatory process may commence very soon after the injury, and microscopical evidence may be afforded within a comparatively short time. What is the period at which we are most likely to meet with it at the bedside? This is a question that I am not able to answer definitely; I can only mention the times at which it was found. Often the patients were too irritable to permit of examination during the first day or so after admission, and others were not examined until some special symptom such as headache, made it appear possible that there might be a neuritis. Of the cases in which the base was fractured, in three it was found on the fifth day, in three on the sixth, in one on the seventh, in two on the eighth, in one on the ninth, and in one on the tenth day, and not until the fourteenth day in one and the twenty-sixth in another, though repeated examinations were made.

[5] Ibid., vol. vii., 1887, p. 208. See also St. Thomas's Hosp. Reports, vol. xi., p. 71.

In the cases where concussion was present without evidence of injury to the bones it was found on the sixth day in one, the tenth in two, and the seventeenth in one. Whilst in the case of bullet wound of brain the inflammatory process was found when the boy was examined two days after the injury; it is not possible to give the approximate date of onset of the second attack.

Messrs. Edmunds and Lawford conclude that "optic neuritis occurs with greater frequency in those cases in which the base of the brain or skull is affected than in those in which it is not."[6] The cases which I have read to you support this conclusion. I would even go further, and add that it is much more likely to follow injuries inflicted on the posterior part of the skull than on the lateral or anterior aspects. Thus it was found in two patients in whom fracture of the middle fossa was diagnosed, in one with probable fracture in the middle and anterior fossæ, in three with fracture of the middle and posterior fossæ, and in six, in which fracture of the posterior fossa was alone present—that is, there was a fracture involving the posterior fossa in nine out of twelve fractures of the base in which optic neuritis was found—a very large proportion.

Dr. C. S. Jeaffreson, in a recent lecture on Optic Neuritis,[7] says that injuries to the head are not a very common cause of optic neuritis unless they are severe and attended with fracture in the neighbourhood of the optic foramen. I agree with the earlier part of his statement, but have not met with any cases that appear to confirm the latter as to the frequent existence of fracture in the vicinity of the optic foramina. It may be, however, that his remark is intended to apply more to the affection of one nerve, and is founded on the statement of Van Hölder as to the frequency of fracture in that situation.

That optic neuritis may be the result of extension of inflammation of traumatic origin from the membranes of the brain is shown by examples only too numerous. Here the meningitis has produced symptoms leading to diagnosis of the disease before the ophthalmoscope has given evidence of the inflammation of the nerves; it is simply confirmatory of the opinion to which the surgeon has already come. Messrs. Edmunds and Lawford are inclined to think the neuritis is due to a meningitis of the base even in the cases that recover, and this seems the most likely explanation; if it be so, however, we must suppose a very localised and subacute inflammation not sufficient to produce any effect on the temperature curve, for, as shown by the charts of the temperature in cases apparently uncomplicated by wound of the soft parts, severe cerebral contusion, or fracture communicating with the external air, judging from ophthalmoscopic examination, the temperature may be below normal when the optic neuritis is at its height. It is not improbable that the inflammatory process is started most usually by a contusion of the brain substance in the neighbourhood, and then passes along the cerebral membranes to the optic nerves. We know how frequently contusion of the under part of the frontal lobes is found after death when the fracture is situated in the posterior fossa of the skull, and I have shown that it is in these cases that we most frequently meet with optic neuritis after a fracture of the base.

INJURIES OF THE CRANIAL NERVES.

Loss of function of one or more of the cranial nerves is not unusual after an injury to the head of some severity, but cannot be described as a symptom of fracture in every case, even when the evidence of the injury to the nerve is at once manifest. The *olfactory* nerves have been torn across in a fracture of the base of the skull, and it is stated that paralysis of these nerves not unfrequently follows severe injuries to the head without evidence of fracture. Loss of smell was complained of by only one of the patients who were under my observation. Examples of injury to these nerves were afforded by the post-mortem examination of two cases: in one there was contusion of the frontal lobes of the brain, with fracture both of the posterior and anterior fossæ, the olfactory nerves being much involved; in the other there was a similar injury to the brain in the frontal region with a fracture in the posterior fossa, and the left olfactory bulb was crushed like the brain substance. These cases are confirmatory of the opinion expressed by Sir Prescott Hewett[8] that loss of smell is most likely to follow injuries in which the anterior lobes of the brain are driven against the bone and bruised. The *optic nerves* may be injured in a thrust wound of the orbit, the instrument which produces the fracture of the bone dividing or lacerating the nerve. They may also be divided by a bullet, sometimes without injury to the brain, in its progress across the head from temple to temple. Such cases are recorded in the Surgical History of the American War of the Rebellion, and are rare in civil practice. I saw one such, however, under the care of Mr. Sydney Jones[9] last year, in which the injury had been self-inflicted with a revolver.

A curious instance of damage to one optic nerve from a bullet wound was under my close observation in 1876. A boy aged fifteen was admitted under the care of Sir W. MacCormac with a wound of the upper and inner angle of the right orbit, caused by a bullet from a revolver a short time previously. This injury was immediately followed by loss of sight in the eye of the opposite side. A probe passed along the track of the bullet went backwards and to the left for three inches and a half. He was suffering from shock, but no symptoms developed. I saw him some years later, and the eye remained disabled, with an atrophied disc. Pressure upon the nerves by a fragment of the sphenoid bone had produced complete blindness.

Dr. Berlin[10] read a paper at the International Medical Congress of 1881[11] on Injuries to the Optic Nerves and Ophthalmic Artery from Fracture of the Optic Canal, and detailed three cases, one of gunshot injury, with a fissured fracture of the roof of the canal, a second of fissured fracture through both optic foramina, and a third of laceration of the internal carotid, with fracture of both optic canals, in each of which there was a laceration of the nerves. The injuries which caused these fractures were necessarily severe and fatal. Van Hölder considered fracture of the optic canal as very frequent in fractures of the base, and Dr. Berlin thought that sudden single amaurosis, following immediately after injuries to the head, was usually due to this cause.

Mr. Nettleship[12] in a clinical lecture gives an account of some cases of injury to the optic nerve which he had observed. Three of them were under treatment in St. Thomas's Hospital in 1881, and I have notes of two cases[13] under care since that time in the surgical wards, in both of which there was evidence of severe injury to the head, with proptosis, followed by atrophy of the disc and blindness. In one atrophy was visible on the seventh day, and Mr. Nettleship noted on the twentieth day that there was still interference with the action of the muscles, and a thickening of the orbital roof. A coal porter[14] aged thirty was admitted under the care of Mr. Sydney Jones on March 27th, 1884, having fallen twenty feet half an hour previously. He had been unconscious for a short time. He was a stout, heavy man, suffering from shock, cold and shivering, but conscious. Pulse 112. There was a wound of the upper lip, and a wound of the nose, at the bottom of which could be felt a fissure of the bone. Much ecchymosis of the cellular tissue of the eyelids of both eyes was found, and on the right side it was already present under the ocular conjunctiva. Slight hæmorrhage took place from the nose, mouth, and left ear. The bones of the face were fractured and separated, and the radius was broken on both sides. The patient was noticed to be unable to see with the left eye on the fifth day, the left pupil was larger than the right, and did not respond well to the action of light. As the swelling in the eyelids subsided it became possible to examine the eyes more fully, and on the eighteenth day a note was made to the effect that the external rectus of the left eye was almost completely paralysed, the pupil did not act to light, and the disc was pale with slight haze, and it was thought that there had been direct injury to the optic nerve, possibly by fracture through the optic foramen. The appearance of the left optic disc on the twentieth day resembled that found after embolism of the central artery of the retina. The various fractures gradually consolidated. The hæmorrhage from the ear was slight and the discharge which followed it of small quantity. There was no vomiting. The temperature for the first week was higher than normal, reaching from 100·8° to 102° in the evening, and being 99° or 100° in the morning; after this it was normal. The strabismus was very marked when he left the hospital, after a residence

[6] Trans. Ophth. Soc., vol. vii., p. 212.
[7] THE LANCET, vol. i. 1890, p. 892. [8] Loc. cit., vol. iii., p. 614.
[9] THE LANCET, vol. i. 1889, p. 424.
[10] Med. Chir. Trans., vol. xiv., p. 348. [11] Transactions, vol. iii., p. 115.
[12] St. Thomas's Hospital Reports, vol. ii., p. 116.
[13] See series by Messrs. Edmunds and Lawford.
[14] Vide THE LANCET, vol. i. 1886, p. 105; ibid., vol. i. 1887, p. 877.

of forty-five days. The left optic disc was extremely pale, and the arteries considerably diminished in size. There were some white lines along the vessels. The right eye continued apparently normal. The man never recovered from the effects of these grave injuries, and was almost constantly under medical care for various ailments, dying at last on Feb. 4th, 1887, from general tuberculosis. There had been no improvement in the condition of the left eye; internal strabismus and complete atrophy of the disc remained. At the post-mortem examination made by Dr. Hadden there was "a united fracture, evidently quite old, of the middle fossa of the skull, which extended from near the apex of the petrous bone, obliquely forwards and outwards to the anterior margin of the fossa. The margins of the longitudinal fissure of the brain were pretty firmly adherent in the anterior half, and the tips of the frontal lobes were adherent to the dura mater. There were evident signs of old meningitis at the base. The pia arachnoid was thickened and opaque, especially over the optic nerves, chiasma, and tracts, the crura, and pons. The optic nerves were dull-grey, and the chiasma and tracts had distinctly changed in colour. There was no marked diminution in size. The left third nerve was greyer than the right, and more flattened. The corpora quadrigemina were normal in size and appearance." Scattered tubercles were found in the brain. The fracture does not appear to have involved the optic foramen.

A man aged about thirty was brought to me at St. Thomas's Hospital in 1888 complaining of loss of sight in the right eye. A few months previously he had been an inmate of the hospital suffering from concussion and an injury to the right frontal region (? fracture), but had not complained of his eyesight. Mr. Lawford reported atrophy of the disc, and the eye was quite blind.

Mr. Nettleship[15] says on this subject: "But in the more common cases the accident is an injury to the head, probably causing fracture of the roof of the optic canal, with crushing of and hæmorrhage into the nerve, or perhaps, occasionally, tearing of the nerve on the brain side of the canal. Both conditions have been shown to occur in fatal cases of fracture of the base of the skull."

Another possible cause of blindness after these injuries is the occurrence of hæmorrhage into the sheaths of the optic nerves. In none of the post-mortem records of cases in the series here brought forward was fracture in the neighbourhood of the optic foramen found, but in eight, where the damage to the base was severe, blood was found extravasated in the sheaths of the nerves. And in one at the end of eight days there was also slight neuritis.

It is a remarkable fact, and one of considerable importance, that in these cases of injury to the head which I have related, and in which optic neuritis was found on ophthalmoscopic examination, if the neuritis was in both eyes complete recovery ensued, but if after an injury to the frontal region a condition of neuritis developed in one eye only, the disc presented at a later date complete atrophy, and the patient remained permanently blind on that side.

Paralysis of one or more branches of the third nerve may ensue as a consequence of injury to the head, but it was very rarely seen, the difficulty in movement presented by various ocular muscles appearing to be the result of hæmorrhage, and the interference which it caused to their action, rather than of any injury to the nerves supplying them. When paralysis of the third nerve was present it was due to compression by an extravasation of blood at the base. In one fatal case in which it was not possible to get a post-mortem examination paralysis of the sixth nerve was noticed on admission, soon after the accident. In five patients who recovered this paralysis was present when they were first examined; in the case of all these the injury had been very severe, and the squint continued without sign of improvement when they passed from observation. In one of these it was associated with optic atrophy, and in one with simultaneous loss of power in the facial nerve of the same side. In all, a fracture of the middle fossa was diagnosed. Of the four others in whom it appeared at a later date—on the second, third, fifth, and thirteenth day—the manifestations of injury were severe, and the squint continued without improvement when last seen, with the exception of the patient in whom it appeared on the third day, and was associated with proptosis, and later with optic atrophy; in his case there was gradual improvement in the squint. It is probable that, when the nerve is paralysed from the first, the paralysis is due to rupture of the nerve, though a case recorded[16] does not seem to support this opinion. In that case it is stated that the squint did not develop until three weeks after the injury, yet at the post-mortem examination the sixth nerve was found snapped across. One can hardly think there was no paralysis until three weeks after the injury. Although in these examples the state of the nerves did not, with one exception, improve under observation, it is the experience of others that in several instances power has been gradually regained.

In a child aged three years and a half suffering from concussion temporary paralysis of this nerve was observed for a period of six days; but with reference to squint in children, the statements of the mothers as to its absence before the head injury do not always agree with what is said by other relatives. There is another thing to be borne in mind, and that is the possibility of the squint being a manifestation of syphilis. An old patient of mine, who had suffered severely from tertiary manifestations some years ago, recently fell forwards accidentally and struck his forehead against the mantelshelf in his room. Three days afterwards double vision gradually developed, which made it difficult for him to move about anywhere. Under iodide of potassium he recovered at the end of two months. That such a symptom as strabismus is important, from the interference with vision that may follow it, is well known, and as the prognosis depends much on the date of its appearance, it should be decided by the medical man when he first sees the patient whether strabismus is present or not, for the question of damages in a law court may depend much on this point, as in a case recently related to me.

Paralysis of the facial nerve is an accompaniment of many fractures of the base; indeed, like hæmorrhage from the ear, it may be regarded as a most valuable sign of fracture in the middle fossa. Mr. Pick,[17] in his remarks on some cases of fracture of the base, states that in thirteen well-marked instances this symptom was present in ten, and that it developed at once in two and in a period of from two to six days in eight. It was not met with in anything like this proportion in the cases under my observation; in only fifteen was paralysis of the facial nerve sufficiently marked to attract attention, if we exclude two in which the patients were the subjects of old hemiplegia. In six the paralysis was present on admission, and persisted when the patients (four in number) who recovered were able to leave the hospital. In the two fatal cases it was found that the fracture which extended through the internal auditory meatus had produced considerable laceration of the nerves. In the others it appeared as follows:—On the second day in a man aged thirty-one, after severe hæmorrhage from the ear, in whom the fracture was proved to have passed across the internal auditory meatus without lacerating the nerves; on the fourth day in a man aged forty-eight, who recovered; on the fifth day in a man aged twenty-nine, who died from erysipelas and pyæmia; on the eighth day in a man aged sixty-two, who died from delirium tremens, the fracture involving the internal auditory meatus, but no coarse lesion of the nerves being seen; on the tenth day in a boy aged ten, there being much œdema of the scalp and suppuration in a scalp wound at the time (the paralysis had nearly gone in a month); on the tenth day in a man aged twenty-three, preceded by deafness the day before (the paralysis had nearly disappeared in a fortnight); on the sixteenth day in a man aged thirty-seven, with an attack of erysipelas (the hæmorrhage from the ear had been very free at first—the paralysis was transient); on the eighteenth day in a man aged forty (deafness before the accident increased during the period of hæmorrhage, four days—the paralysis lasted six days, and during the time deafness was more manifest).

[15] Loc. sup. cit.

[16] Journal de l'Expérience, 1843.

[17] Brit. Med. Jour., 1865, p. 530.

MILDMAY MISSION HOSPITAL.—The ceremony of laying the foundation-stone of the new hospital, which is to take the place of the old one consisting of hired premises, was performed on Saturday by the Countess of Tankerville. It is situated near Shoreditch in the midst of a very poor population, is to contain 50 beds, and will cost nearly £15,000, the greater part of which has already been subscribed.

ABSTRACT OF THE

Croonian Lectures

ON

CEREBRAL LOCALISATION.

Delivered before the Royal College of Physicians of London,

BY DAVID FERRIER, M.D., LL.D., F.R.S.,

PHYSICIAN TO KING'S COLLEGE HOSPITAL, AND TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, QUEEN-SQUARE.

LECTURE VI.

MOTOR CENTRES.

IN this lecture Dr. Ferrier considered the physiological signification of the Rolandic area in monkeys and man, and its homologues in the lower animals. The effects of the stimulation of this region were fully described in Lecture II. Destruction of the centres, excitation of which produces movement, causes paralysis (*quâ* volition) of the same movements on the opposite side of the body, varying in degree, completeness, and duration with the extent of the destruction of the respective centres. Dr. Ferrier referred to an experiment made by him on a monkey which he showed at the International Congress in 1881, the brain of which was investigated by a special committee. In this the cortex was destroyed, as shown in Fig. 33, in the left hemisphere over an area embracing the ascending frontal and ascending parietal convolutions, except at their upper and lower extremities; also the base of the superior frontal and the anterior limb of the angular gyrus. The result

FIG. 33.

was complete right hemiplegia, with conjugate deviation of the head and eyes to the left. As in man, the deviation of the head and eyes was only temporary, but the paralysis of the limbs continued, and was well marked eight months after the operation. Cutaneous sensibility was unimpaired throughout, the slightest touch excited attention, and a pinch or other painful stimulus caused signs of sensation quite as vigorous as on the other side. Ultimately contracture of the paralysed limb with exaggeration of tendon reactions became established, and microscopic examination showed secondary degeneration in the pyramidal tracts throughout the cord.

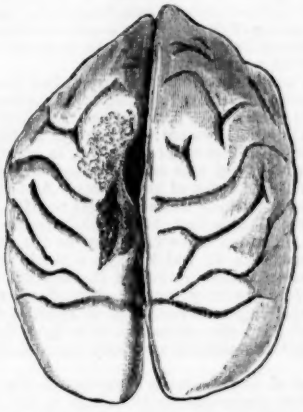
In another case a localised excision at the upper extremity of the fissure of Rolando (see Fig. 34) on the left side was followed by complete paralysis of the right leg, and in due course by contracture of the limb, sensation being unaffected.

In another experiment the parts of the ascending parietal and ascending frontal convolutions, which gave rise to movements of the hand when stimulated, were excised. The result was complete paralysis of the hand and great weakness of flexion of the forearm, without any affection of the shoulder muscles. Tactile sensibility was as acute as before.

Dr. Ferrier referred to the experiments of Horsley and Schäfer[1] on the marginal gyrus. Unilateral removal is without very marked effect, but bilateral removal causes absolute paralysis of the trunk muscles and of those moving the hip; so that a monkey experimented on lies prone, with legs and feet outstretched, the back no longer arched, the tail straight and motionless. Movements of the head and upper limbs are not much affected. The animal is quite unable to sit up, and can only get into an erect position by drawing himself up with his hands. If these are detached from the support the animal falls over. Progression is effected by the animal dragging itself along by its arms.[2]

Fairly strong stimulation of one side of the hemisphere not infrequently gives rise to movements on both sides of the body, most marked on the opposite side, probably owing to commissural fibres connecting the bulbar and spinal nuclei with each other; and in the monkey, as in man, it is not rare to find descending degeneration in both lateral columns as a result of unilateral cortical lesions; and Sherrington has recently shown that this is much more liable to occur if the lesions affect the parts associated with bilateral movements—(e.g., those of the trunk) than if the parts destroyed are connected with unilateral movements, as those of the arm. The clinical observation of Brown-Séquard, Pitres,[3] and Friedländer,[4] showing that in hemiplegia there is also considerable loss of power on the same side as the lesion, also support the view that each hemisphere is in relation with both sides of the body. It is this bilateral representation which accounts for a certain amount of recovery even when the motor centres of one side have been entirely destroyed, and this recovery extends more particularly to those movements of the limbs which are more or less habitually associated with those of the other side. Hence, in cortical paralysis the arm is more paralysed than the leg, and the distal movements of the arm more than the proximal. The

FIG. 34.



effects of disease and of surgical excision of the motor centres in man leave no room for doubt that such lesions are invariably followed by paralysis of volitional motion in the affected parts. Dr. Ferrier referred to a series of 483 cases of localised cortical and subcortical lesions collected by Dr. Ewens, in which there was paralysis of corresponding parts on the opposite side; and to a second series of twenty cases of atrophy of the cortex in the Rolandic region, in connexion with congenital or infantile hemiplegia, or as the result of congenital absence, or long-standing amputation of a limb.

Dr. Ferrier rejects the idea of compensation by other portions of the same hemisphere, and believes that it is brought about entirely by the representation of movements to a varying extent in both hemispheres. Only those movements are permanently affected which are least automatic and most volitional, and *vice versâ*.

Dr. Ferrier stated that he had never been able to detect the slightest impairment of special or general sensibility after destruction of the motor centres. The animal's atten-

[1] Phil. Trans., B. xx., 1888. [2] See illustration, Fig. 20, op. cit.
[3] Arch. de Neurologie, No. 10, 1882.
[4] Neurologisches Centralblatt, No. 11, 1883.

tion is at once attracted by the slightest touch on the paralysed side, or by any painful stimulation, such as the prick of a pin. The contrast between the reactions to sensory stimulation in monkeys in which the falciform lobe has been excised and those in which the motor centres have been removed is so striking that no doubt can be entertained that in the latter case sensibility is retained, while in the other it is abolished or profoundly impaired. Horsley and Schäfer are convinced "that a lesion of the cortex which produces paralysis of volitional movement is not necessarily accompanied by loss of general sensibility of the paralysed part."[5] These observers also tested the hypothesis that the superficial layers of the cortex are sensory in function, by destroying these layers by means of the actual cautery. They obtained "only an incomplete muscular paralysis as the immediate result of the operation; but although the superficial layers of the cortex must have been destroyed, there was no diminution of sensibility in the parts affected by paresis." Subsequently, in consequence of inflammatory softening, the muscular paralysis became more complete, but the general sensibility of the opposite side was still apparently unaffected, and continued so until the death of the animal.[6] Goltz[7] has also shown the retention of sensibility after removal of the motor centres. He took advantage of the well-known fact that dogs snarl when touched while engaged in eating. He therefore touched the right side of a dog, whose motor centres on the left side had been removed some time before, while so engaged, and the animal invariably responded with the characteristic signs of displeasure on the slightest touch. Bechterew[8] also made similar observations on cats, and found that after extensive cortical lesions, they exhibited the same aversion to having their feet wetted, or to having water sprinkled on their fur as before the operation.

On the other hand, it has been maintained by Hitzig, Nothnagel, Schiff, Munk, Tripier, Goltz, Luciani, and others that the motor paralysis is accompanied by affections of tactile, muscular, or general sensibility, or all three combined, in the paralysed limbs. These conclusions appear to Dr. Ferrier to be based merely on defective reaction, which can be equally well explained on the theory of motor inability as of sensory deficiency. It is unquestionable, also, that in man paralysis from lesion of the motor area is in the majority of instances an essentially motor affection, unaccompanied by any discoverable loss of sensibility. In some cases some degree of sensory disturbance has been recorded as occurring in connexion with such lesions. Cases of this kind have been recorded by Petrina,[9] Exner,[10] Luciani and Seppili,[11] Starr,[12] Dana,[13] and Lisso,[14] who have endeavoured to show from clinical records, that the motor centres and those of tactile and general sensibility coincide, so that sensory disturbances frequently, if not always, accompany the motor paralysis. The evidence appears to Dr. Ferrier unsatisfactory, the lesions having been microscopic specks of themselves insufficient to cause anything, and for the most part tumours which may cause anything, or multiple foci of disease, not confined to the cortex itself. In an independent investigation of recorded cases, Dr. Ferrier finds that out of 110 cases of general lesion of the Rolandic zone only 21 were noted as showing any loss of sensibility. In one of the cases a large portion of the motor cortex was excised[15] without any loss of sensation. Of the cases in which it was affected, he finds that in one there was blunting of sensation over the little finger.[16] In another there was general hyperæsthesia, more marked on the paralysed side. In one all varieties of sensibility were retained, but localisation of touch was somewhat defective.[17] In this case, however, the inner table had been driven deeply into the brain substance, causing general hemiplegia. In two the lesion penetrated deeply into the white substance, and another was complicated by the presence of a large tumour in the centrum ovale.[18] In another sensibility was blunted on both sides of the body. In six others the island of Reil and the external capsule were involved; in another the lesion was complicated by tubercular deposit in the gyrus fornicatus. In seven there was coincident diffuse meningitis. In one case under Dr. Ferrier's care, where some degree of anæsthesia followed removal of a cicatrix in the ascending frontal region, the surgical lesion was such as to actually implicate the gyrus fornicatus.

Of five cases of excision of the motor cortex for focal epilepsy, in two reported by von Bergmann[19] and Keen, sensation was intact. In another reported by Keen,[20] of hemiplegia and epilepsy resulting from depressed fracture, there was some impairment of sensation in the middle of the forearm and two inner fingers, but this condition also existed before the operation. In a fourth[21] there was no obvious impairment. In a fifth case[22] the removal of a tumour from the right lower parietal region, which was the cause of epilepsy beginning in the thumb, was followed by tactile anæsthesia of the whole of the left side, with loss of so-called muscular sense in the left arm. In this case the sensory tracts for the whole of the opposite side were obviously implicated. Of thirty other cases of brachial monoplegia sensibility was unimpaired in twelve, not mentioned in fifteen, and affected in three. In one of these the lesion was a gumma,[23] in the second[24] there was a clot compressing the island of Reil, and in the third sensibility was said to have been extinguished over the whole body.[25] A number of similar cases were quoted, in each of which the question was not one of simple, but of multiple or complicated lesion of the cerebral cortex. It thus appears that of 284 cases of lesion affecting the Rolandic zone, generally or in part, in 100 the condition of sensibility was not mentioned; in 121 it was stated by many of the most reliable clinical observers to have been intact, and by many of them all varieties of sensibility are expressly stated to have been tested. In sixty-three some impairment was noted; in twenty-eight of these the lesion was not confined to the Rolandic zone, but implicated adjacent lobes, especially the parietal. With regard to the remaining thirty-five, it has been shown above that, in the majority at least, conditions existed which were calculated to implicate either the sensory centres in the gyrus fornicatus, or the sensory tracts of the internal capsule. Even where this is not proved it is more logical to believe that such conditions may have existed, than that in some individuals the tactile and motor centres should coincide, while in others this should not be the case. Nor does Dr. Ferrier consider the sensory aura which occasionally precedes an epileptiform convulsion as proving more than contiguity, functional or anatomical, of the motor areas, and not coincidence. The occurrence of slight defects in tactile and muscular sensibility, more particularly in the fingers, which has been looked on by several as a special characteristic of lesions of the cortical motor zone, are, in Dr. Ferrier's opinion, to be regarded as beginnings or remnants of a general anæsthesia, rather than as indicative of special centres for the tactile and muscular sensibility of the digits of the motor cortex. In support of this Dr. Ferrier quotes a case which he observed in which there was word blindness and hemiopia. There was no paralysis of motion, but slight impairment of the localisation of touch and the sense of position in the fingers of the left hand. Mr. Horsley performed an exploratory operation, and the tumour was found deeply situated beneath the angular gyrus. In this case no doubt the sensory tracts of the internal capsule were implicated, but only to a slight extent. A more extensive involvement of the internal capsule would undoubtedly have caused complete hemi-anæsthesia on the opposite side of the body. This case has an important bearing on the hypothesis of Nothnagel,[26] that the centres of the muscular sense are situated in the parietal lobe. Defects of tactile sensibility and the muscular sense have not infrequently been observed in connexion with lesions in this region, sometimes complicated with hemianopia, as in the case quoted above, and in one

[5] Op. cit., p. 15.
[6] Op. cit., p. 17.
[7] Pflüger's Arch., Bd. xxxiv., 1884.
[8] Ibid., Bd. xxxv., 1885.
[9] Zeitsch. f. Heilkunde, Bd. ii., p. 375, 1881.
[10] Localisation der Functionen in der Grosshirnrinde des Menschen, 1881.
[11] Die Functions-localisation auf der Grosshirnrinde, 1886.
[12] Localised Cerebral Disease, Amer. Jour. Med. Sci., 1884.
[13] Cortical Localisation of Cutaneous Sensations, 1888.
[14] Zur Lehre von der Localisation der Gefühls in der Grosshirnrinde, 1882.
[15] Case of J. H. Brain, x., p. 95.
[16] Tripier: Rev. Mens., 1880. Case 4.
[17] Bramwell: Brit. Med. Journ., August, 1875.
[18] Seguin: Trans. Amer. Neurol. Assoc., 1877, p. 115.
[19] Arch. f. Klin. Chirurgie, 1887, p. 864.
[20] Amer. Journ. Med. Sci., 1888, Case 2.
[21] Lloyd-Deaver's case, American Journal of the Medical Sciences, 1888, p. 477.
[22] Jackson and Horsley, Brain, vol. x., p. 93.
[23] Martin: Chicago Med. Journ., vol xlvi., p. 21.
[24] Wood: Philad. Med. Times, vol v., p. 470.
[25] Ringrose Atkins: Brit. Med Journ., 1878.
[26] Cong. f. Innere Med., Neurolog. Centralbl., 1887, vol. vi., p. 213.

reported by Westphal,[27] but the real cause of these symptoms Dr. Ferrier believes to be implication of the subjacent internal capsule. With regard to the muscular sense, he agrees with Bastian,[28] James,[29] and others, that the sense of movement, its range and direction, are dependent on ingoing or centripetal impressions conditioned by the movement itself, and not on the out-going current, or energising of the motor centres. The centres of the sensations which accompany muscular action are distinct from those cortical centres by which the particular movements are effected. In hemi-anæsthesia (without hemiplegia), functional or organic movements can be well coördinated, provided that the aid of vision can be employed. Charcot states that in cases of hysterical hemi-anæsthesia coming under his observation there is usually, but not always, impairment of the muscular sense and sense of position. He has not at present met with it unaccompanied by cutaneous anæsthesia; and he believes that it represents the highest degree of the hemi-anæsthetic scale. Although muscular power is not greatly diminished, the movements of the limbs deprived of the muscular sense are uncertain and hesitating.

After considering the relations between visual, tactile, and muscular sensations, and volitional movement, Dr. Ferrier concludes, that although under ordinary conditions the sensations of movement are the invariable accompaniment of muscular action, and are repeated as often as the muscular action itself, this constant association does not imply that the one is dependent upon the other, or that the musculo-sensory ideas of movement are the necessary or immediate excitants of the movement itself.

Dr. Ferrier then referred to the views of Bastian that, in addition to the conscious impressions that accompany muscular action, there is also a set of unfelt impressions which guide the motor activity of the brain by automatically bringing it into relation with the different degrees of contraction of all the muscles that may be acting; these unfelt impressions being designated as "kinæsthesis." Bastian considers that the motor centres are the seat of this kinæsthesis, and that they are, therefore, in reality sensory centres, which excite the true motor centres in the spinal cord through the pyramidal tracts. If it were the case, as Bastian assumes, that the ideal revival of kinæsthetic impressions is the immediate excitant of the true motor centres in the spinal cord, Dr. Ferrier holds it would follow that the cortical motor centres would be independent centres of activity, irrespective of stimuli from the sensory centres of the cortex. The experiments of Marique,[30] and of Exner and Paneth,[31] however, show that they are not independent, as if the association fibres with the sensory centres of the cortex be divided, paralysis ensues exactly as if the motor centres themselves had been extirpated. Electrical excitation after isolation of the respective centres showed that they still retained their excitability and connexion with the pyramidal tracts. Moreover, if the true motor centres were only in the spinal cord, one would expect to find them developed in correspondence with the motor capacities of the animal. This, however, is not the case, for the spinal motor centres in man are much less developed, relatively to his size and the development of the cerebral cortex, than that of other animals. The development of the spinal motor centres corresponds with that of purely reflex muscular combinations, while that of the cerebral motor centres corresponds with the multiplicity and complexity of the motor faculties, volitional and cognitive.

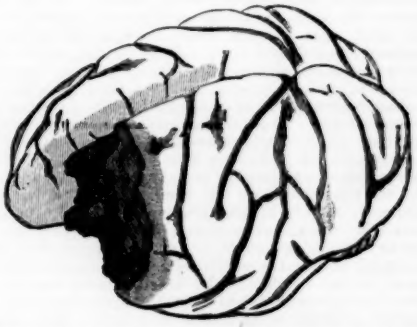
From these various considerations Dr. Ferrier concludes that the motor centres of the cortex are not the centres of tactile or general sensibility, nor are they the centres of the muscular sense, whether we consider this to depend on centripetal impressions, conscious or unconscious, or on a sense of innervation; but that they are motor in precisely the same way as other motor centres, and though functionally and organically connected, are anatomically differentiated from the centres of sensation, general as well as special.

FRONTAL CENTRES.

The function of that part of the brain in front of the precentral sulcus is still obscure. Anatomically it is related to the motor tracts of the internal capsule, the fibres passing, according to Flechsig, in the inner portion of the foot of the crus, connecting the frontal lobe with the opposite cerebellar hemisphere indirectly through the grey matter of the pons. This tract Dr. Ferrier has shown[32] to degenerate downwards, indicating the motor signification of this region. Similar degenerations have been described by Brissaud as the result of frontal lesions in man. In his observations they were always associated with psychical defect.[33]

Electrical irritation and destruction of the parts alike indicate that the post-frontal region is related to the lateral movements of the head and eyes. Unilateral removal of this portion causes transient, and bilateral destruction more lasting, paralysis of these movements. Removal of the frontal lobes anterior to these centres, however, caused no discoverable motor or sensory symptoms. In several instances it was observed that after the symptoms of destruction of the post-frontal region had passed off, subsequent removal of the anterior part of the frontal lobes reproduced the paralysis of head and eyes. Dr. Ferrier has recently extirpated the whole of the frontal lobe of the left hemisphere. (See Fig. 35.) There followed conjugate

FIG. 35.



deviation of head and eyes to the left, drooping of the right eyelid, and contraction of the right pupil. Conjugate deviation of the eyes persisted until the sudden death of the animal ten days later.

Beyond these facts Dr. Ferrier has been unable to discover any other symptoms on removal of the frontal lobe. Hitzig,[34] however, states that impairment of vision occurs. Dr. Ferrier considers that this is probably due to the conjugate deviation of the eyes limiting the animal's field of vision. From his own observations, and those of Horsley and Schäfer and others, Dr. Ferrier questions the conclusions of Munk that the frontal region is associated in dogs with the trunk muscles. In addition to the motor symptoms, both Dr. Ferrier and Goltz have observed a psychical defect, apparently due to an inability to look at or direct the gaze towards objects which do not spontaneously fall within the field of vision—a form of mental degradation which appears to depend on the loss of the faculty of attention.

The recorded cases of injury and disease of the frontal lobes in man are in accordance with the results of experimental lesions. Of fifty-seven cases of lesion of the frontal region, collected from various sources, in two there was conjugate deviation of the head and eyes; twelve in which intelligence was specially impaired; and in all a total absence of paralysis of the limbs.

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[27] Charité Annalen, 1882.
[28] Paralyses, Cerebral, Spinal, and Bulbar, 1887.
[29] The Feeling of Effort, 1880.
[30] Centres Psycho-Moteurs du Cerveau, 1885.
[31] Versuche über die Folgen der Durchschneidung von Associationsfasern am Hundehirn, Arch. f. d. ges. Phys., Bd. xliv., 1889.

[32] See Fig. 122, Functions of the Brain.
[33] Contraction Permanente des Hemiplégiques, 1890.
[34] Arch. f. Psychiatrie, 1887, vol. xv., p. 270.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—His Royal Highness the Duke of Cambridge has consented to act as chairman of the reception committee to meet their Royal Highnesses the Prince and Princess of Wales at the foundation ceremony on the site of the new hospital in St. George's-circus, Southwark, on Thursday, the 24th inst., at 4.30 P.M. The committee will also include the Lord Mayor, the Marquis of Carmarthen, M.P., the Earl of Kilmorey, the Hon. and Rev. F. G. Pelham, Sir Richard Wyatt, Mr. Sheriff Harris, Mr. Alderman and Sheriff Stuart Knill, and other gentlemen of influence.

ETHER AS A MENSTRUUM IN MEDICATION BY THE SKIN.

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IN some researches in iamatology which I have been making for some years, it has occurred to me that the use of the skin in therapeutics, as a channel for the exhibition of remedies designed to effect either local or remote curative results, or both of them, might be extended in range, cleared in precision, and improved in efficacy. I know the question of the absorption of medicines by the skin bears many difficulties, and has excited some disputes. Authorities have been divided as to how far, if at all, the local and remote effects of remedies applied to the human body in morbid states can be produced through the cutaneous surface. No practitioner of medicine is likely to doubt, however, that the human body, in many of its organs and tissues, can be readily brought under the direct and distant influences of hydrargyrum by the cutaneous inunction of mercurial ointment. It is easy to question the efficacy of remedies exhibited by the skin when the effects which they produce are less objective in their demonstration than those of mercury. We may recall that the capacity of the skin to absorb medicinal substances from their aqueous solution in baths was accepted in the medicine of the ancients, whose therapeutic uses of medicated baths we are now learning, *longo intervallo*, to imitate. The question has been discussed frequently since the close of the last century.[1] At that time Abernethy and Falkner concluded, from a series of experiments, that the absorption of some remedies through the skin did take place under certain conditions; and, while some other observers were led to qualify or to contradict these inductions, affirmative conclusions upon the subject were fully supported by Braconnot, Chevallier and Petit, and other investigators. Some striking instances of efficient percutaneous medication are well known to us. For example, ointment of aconitia rubbed upon the skin of the face produces anæsthesia of the subjacent sensory nerves, "so that a razor passed over the part in the act of shaving is not felt."[2] We are accustomed in medical practice to present remedies to the skin with the view of producing remote as well as local effects, in the various forms of the officinal emplastra, of the officinal liniments (alcoholic, oleaginous, and saponaceous), and of fatty unguents. Of these separate forms of medicaments in enepidermic use, the ointments and the oily liniments are probably the most active, because of their easy admixture with the fatty sebaceous secretion of the skin. I do not think the structure of any Pharmacopœial plaster is such as is likely to permit of the absorption of its active ingredients. There are fourteen plasters in the British Pharmacopœia. A "true plaster" is held to have for its basis litharge in union with oleic, margaric, and stearic acids, and eleven officinal plasters are so composed. The other plasters, which are not strictly plasters, take their body from the chemical action of their ingredients, as in emplastrum ammoniaci cum hydrargyro, or from wax, lard, pitch, frankincense, suet, resin, soap, and some fixed oils, in various combinations. Neither a plaster so formed nor a solution in alcohol of the active principles of drugs is a scientific medicament for enepidermic employment and percutaneous action, if we have regard to the structure and physiology of the human skin.

I think it will be found there are in practice three separate obstacles to the absorption of a medicine through the skin—namely, the epidermis, the sebaceous secretion of the skin, and the relative insolubility of the drug which is employed in any particular case. After some observation and consideration I thought ether would be the best menstruum at our disposal for the solution of many remedies designed for enepidermic application, and I concluded that ethereal liniments would be more active through the skin, and certainly stand upon a better scientific basis than plasters, than any of the officinal liniments, or even than fatty unguents. Ether presents several advantages over other bases and menstrua for remedies applied to the skin. It has great endosmotic capacity; it probably possesses in a high degree what has been called "diffusion power;" it is a solvent of high potency for many active drugs, or more precisely, for the active principles of many such drugs; and it also is a ready solvent of the fatty constituents of the sebaceous secretion of the skin. When we use ether as a dissolvent for an active drug which we apply to the skin, we apply our remedy in solution in a menstruum which is a perfect solvent for the obstructing fatty sebaceous secretion of the cutaneous surface; we employ a menstruum, which by its solution of the fatty secretion permits the most intimate application of the remedy to the bare epidermal surface. In THE LANCET of May 17th of the present year I published a brief account of an ethereal tincture of capsicum, which I have been using largely in practice, and which I have found to be a very active rubefacient and an efficient remedy in several painful maladies. I now venture to recommend to my brethren the employment of ether as a solvent vehicle for some other remedies which may be applied to the skin. After examining a large number of drugs I have selected belladonna, iodine, and menthol, besides capsicum, as suitable for external therapeutic employment in the form of ethereal tinctures. Ethereal tinctures of these well-known drugs have been made according to my directions, and it has been easy to find for these preparations some considerable application in the exigencies of daily practice. After using these ethereal tinctures with satisfactory results, I have searched my library for references to this employment of ether, and I am glad to find the following important passage bearing upon the subject in Dr. Lauder Brunton's text-book of therapeutics: "It would appear that the fat in the skin as well as the epidermis presents an obstacle to the absorption of substances in solution, but when they are applied in such a form that they can readily mix with the sebaceous matter of the skin, they are tolerably readily absorbed, as, for example, when they are used in the form of ointment. ..... They are also absorbed when dissolved in ether, and especially in chloroform, even when simply painted over the surface. Alcoholic solutions are not absorbed when painted in this way."[3] The disadvantages of chloroform as a menstruum of this kind are numerous and obvious. Ethereal tincture of belladonna (tinctura belladonnæ ætherea) I propose should be made from belladonna root, with camphor, of the same strength as the belladonna liniment of the Pharmacopœia, using the officinal pure ether in its preparation instead of rectified spirit of wine. The result is a bright tincture of a brilliant "apple green" colour. I think this tincture will be found useful as a paint for the skin in cardiac and other cases in which belladonna plasters or liniments would otherwise be employed. I have used belladonna root instead of belladonna leaves, because it gives a preparation which does not colour the surface of the skin as one made from the leaves does. In cardiac cases emplastrum belladonnæ is a clumsy and inconvenient application. It is dirty, uncomfortable, not seldom irritating, and always offering some obstacle to the examination of the heart by physical methods. Ethereal tincture of iodine I have had made of the same strength as the officinal tincture of iodine. To form an ethereal tincture of menthol I have, after many experiments, fixed upon a solution of menthol in pure ether, of the strength of one drachm of menthol in a fluid ounce of the solution. This preparation can be readily applied as a paint to the skin, and it is an efficient means of using menthol for its local therapeutic effects, especially for the removal of superficial neuralgic pains. It should be lightly painted over the painful part. The quick evaporation of the ether gives a grateful sense of coldness which supplements the analgesic action of the menthol, and allows the easy application of a succession of coats, which leave pure menthol in a finely divided condition upon the skin. For the application of ethereal tincture of menthol I have found it best to use a brush of glass. When the meshes of the brush become clogged with menthol by the evaporation of the ether of the preparation, they can be freed in a moment by dipping the brush into the tincture.

Messrs. Southall have given me much assistance in the experiments and inquiries upon which this paper is founded.

Birmingham

[1] See Dr. Scoresby-Jackson's Note-book of Materia Medica &c., fourth edition.

[2] Farre's Pereira's Materia Medica and Therapeutics.

[3] Text-book of Pharmacology, Therapeutics, and Materia Medica, &c.

TWO CASES OF GASTRO-ENTEROSTOMY FOR PYLORIC CARCINOMA.

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NOW that the question of the surgical treatment of pyloric carcinoma is being brought more prominently before the profession in consequence of the improved method of performing operations on the stomach and intestines as introduced by Professor Senn of Milwaukee, and confirmed by myself in this country, I think the following two cases o gastro-enterostomy may be of interest.

CASE 1.—W. V——, aged sixty-one, a Bath-chair man, was admitted into the Cancer Hospital, Brompton, on Feb. 12th, 1890, suffering from carcinoma of the pylorus. Family history: Brother died of abdominal cancer. Previous history: Has always enjoyed good health. For many years was a steward on the "Allan" line. During the summer of 1889 was employed as a waiter, and carried heavy trays up and down stairs, resting the edge of the tray against his abdomen. Present complaint: He first noticed the growth in the beginning of Oct. 1889. It seemed to be situated on the left side, and extended towards the right. Has suffered from vomiting every other day for the last two or three months; sometimes he has vomited twice or three times a day, the vomited matter being dark and frothy. Has lost flesh considerably, and during the last three weeks has lost 12lb. in weight. State on admission: Stomach much dilated, extending downwards nearly to the pubes. Succussion splash readily obtained. A hard growth is felt in the epigastric region, extending downwards to the umbilicus, and to about an inch on each side. This mass is firmly fixed. A smaller mass, apparently separate from the larger growth, is to be felt just below, and to the right of the ensiform cartilage. The stomach was ordered to be washed out twice a day with a 20 per cent. solution of salicylate of soda and water. This had the effect of speedily reducing the size of the stomach and enabling more exact examination of the growth, which was found to be about the size of a cocoa-nut, measuring five inches and a half across, four inches vertically on the right side, and two inches and a half on the left. The tumour was nodular, and presented a deep notch just above the umbilicus and about the centre of the growth. The disease apparently extended along the anterior wall of the stomach. Tympanitic note over the whole growth excepting to the extreme right. As the man was rapidly losing strength and suffered much pain and distress from the constant vomiting, the operation of gastro-enterostomy was recommended as a palliative measure, it being recognised that it would be impossible to remove the disease. The patient having consented, he was fed by nutritive enemata for the following three or four days, only being allowed essence of beef, milk, &c., by the mouth, and his stomach was washed out twice a day with the salicylate of soda solution. On Feb. 23rd, the morning of the operation, at 8 o'clock, he had 4 oz. of strained beef-tea and 1 oz. of brandy. At 10 o'clock he had his stomach washed out and an enema of beef-tea and brandy. At 1 o'clock his stomach was again washed out and another enema of 3 oz. of strong beef-tea and 2oz. of brandy given. Just before the operation a hypodermic injection of $\frac{1}{120}$ grain of atropine was given. At 2 o'clock chloroform was administered by Dr. English by Junker's inhaler, and with the assistance of Drs. Purcell, Dove, and O'Reilly I performed the following operation. In consequence of the growth extending so far over to the left of the umbilicus, and being so fixed, I determined to make my incision in the left linea semilunaris; the incision extended from about $1\frac{1}{2}$ in. below the margin of the ribs downwards for about 3in. All bleeding points being secured, the peritoneum was opened and a coil of small intestine as near as possible to its commencement from the duodenum was drawn out of the wound. Two indiarubber bands about four inches apart were passed through the mesentery, and the portion of bowel to be opened being carefully emptied, the ligatures were lightly fastened round the intestine. A portion of the stomach was now drawn into the wound with some little difficulty, owing to the fixity of the growth and the proximity of the œsophageal connexions. The parts being packed round with sponges, an opening was made into the stomach about an inch in length, parallel to, and one and a half inches from, the greater curvature. A decalcified bone plate, armed with four silk threads, was passed into the stomach through the opening, and the two lateral threads, with needles attached, were passed through all the coats of the stomach about a third of an inch from its cut edge, the longitudinal threads passing through the opening. These threads were then given to Dr. Dove to take charge of, while an opening was made into the jejunum between the two elastic ligatures, and another bone plate, similarly armed with silk sutures, was passed into it, the lateral threads, having needles attached, being passed through all the coats of the intestine. All bleeding points being secured and ligatured with fine catgut, the two bone plates were approximated and kept firmly in apposition by Dr. Dove, and the corresponding threads of the two plates were tied firmly, the two lower lateral ligatures being tied first, then the end ones, and finally the upper lateral ligature. There was some difficulty owing to the fixity of the stomach in keeping the plates in strict apposition. It was deemed advisable, therefore, to put in about six Czerny-Lembert sutures around the plates. The elastic ligatures were now removed, and the parts, having been thoroughly cleansed, were dropped back into the abdomen, the toilet of the peritoneum was attended to, and the parietal wound closed in the usual manner. The patient stood the operation well, and was returned to bed He was ordered to have nothing by the mouth excepting a little warm water to rinse his mouth out with. Enemata of zyminised beef-tea 3 oz., and brandy 1 oz., were to be given every four hours, and the urine to be drawn if necessary every six hours.—Feb. 24th: Passed a good night. Temperature normal; pulse 84, good; respiration easy; tongue moist and clean; no pain; vomited about 10 oz. of blood-stained fluid. Beef-tea and brandy enemata were continued every four hours. Complains slightly of thirst. To have nothing by mouth.—25th: Passed a fairly good night, with intervals of sleep of about two hours at a time. Temperature normal; pulse 80, rather weak; breathing regular and quiet; tongue moist; no pain or tenderness; abdomen soft and flaccid. Enemata to be continued as before, alternated every four hours with zyminised beef suppositories.—26th: Patient somewhat restless. Temperature normal; occasional hiccough; no tympanitis or abdominal tenderness.—27th: Restless night. Pulse feeble and the patient appears very weak. To have a teaspoonful of essence of beef every hour as well as beef-tea and brandy enemata.—28th: Patient gradually got weaker and died during the night, apparently from exhaustion. The abdomen was quite flaccid, and there was no pain or tenderness.

Necropsy, March 2nd.—Emaciation extreme. Abdomen: General old peritonitis over liver, spleen, and cardiac end of stomach; the posterior surface of many coils of intestine adherent to the mass of glands covering the lumbar vertebræ. Liver: Nutmeggy; large secondary deposit. Spleen adherent to diaphragm by old pleuritic bands. Abdominal lymphatics enlarged down to the sacrum. The stomach, intestines, and mass of lumbar lymphatic glands were removed *en masse*. The adhesions between the stomach and jejunum were perfect; the portion of intestine attached to the stomach was discoloured, but showed only very slight signs of recent peritonitis, which was quite localised to half an inch surrounding the puncture. One coil of intestine was adherent to the posterior surface of the wound in the abdominal wall. The stomach and intestines were dilated and distended with gas, and contained some brownish fluid. On opening the stomach, the bone plates were seen nearly digested, hanging by the silk sutures from the opening into the jejunum, which was quite patent and healthy. The portion of intestine which was joined to the stomach was found to be situated about three inches from the commencement of the jejunum.

CASE 2.—A. C——, aged fifty-six, widow, was admitted into the Cancer Hospital, Feb. 14th, 1890, suffering from carcinoma of pylorus. Family history: None. Personal history: Has had four children, last child born twenty-two years ago. Menopause six years since. Patient always been delicate. Has always suffered from indigestion; for many years she had an acute attack every summer, which confined her to bed for about a fortnight. The symptoms were pain in chest and back, vomiting, flatulence, and constipation. She dates her present illness back for six years, and says it commenced as one of her usual attacks of indigestion. It lasted, however, longer, and was more severe. Her doctor told her the liver was congested, and a few

months later she discovered a "lump" in her abdomen. For eight or nine months the patient continued very ill, and was confined to her bed, suffering severe pain, and vomiting several times a day. There was no hæmatemesis. During this time she was frequently seen by the late Dr. Habershon, of Guy's Hospital, who told her the disease was incurable. Under treatment, after a while she began to improve, the tumour disappeared, the pain and vomiting ceased, and she got comparatively well. She remained free from all discomfort for the following five years, but in February, 1889, the old symptoms gradually returned, and the tumour reappeared. The pain was very severe, and was sometimes aggravated and sometimes relieved by taking food. There was occasional vomiting, but food was not returned, she bringing up a "frothy, sour, watery fluid." In May, 1889, she attended at the Cancer Hospital, under the care of my colleague, Dr. Purcell. She continued to get gradually worse until November, growing thinner, and suffering great pain, but able to get about. In November, however, she became considerably worse, and was almost constantly confined to her bed, the pain was most severe, and everything she ate was vomited, usually in a few hours after eating. The tumour gradually increased in size. She was admitted into the hospital under the care of my friend and colleague Dr. Purcell, through whose courtesy and kindness the patient was handed over to my care. State on admission: There is a tumour in the abdomen occupying nearly the whole epigastric region, situated apparently at the pylorus, and extending along the anterior part of the stomach. The tumour is movable, and also moves with respiration. The stomach is enormously dilated, extending as low as the pubes. Succussion splash very distinct. Patient vomits once or twice a day a brownish fermenting fluid, filled with sarcinæ. Patient is very emaciated and weak. Urine healthy. She was ordered to have the stomach washed out twice a day with a solution of salicylate of soda and water, and to take only zyminised milk, brandy, and essence of meat. She was also fed by nutritive enemata, port wine, beef-tea, and eggs three times a day. Under this treatment the patient gained strength and the stomach rapidly decreased in size, and vomiting ceased. The tumour was found to be so large that pylorectomy was not to be thought of; but, in consultation with my colleagues, it was decided to recommend gastro-enterostomy, as being likely to prolong life and to allow of the patient taking food by the mouth, and discontinuing the disagreeable process of having her stomach washed out. As the preparation for the operation, and the operation itself, were carried out in identically the same manner as described in Case 1, I need not repeat the details here. I will only point out that in this case I used chromicised catgut ligatures for the bone plates instead of silk. The abdominal incision was made in this case in the left linea semilunaris, as in Case 1. The patient bore the operation well, and passed a good night. She was ordered to have zyminised beef-tea and port-wine enemata every six hours, and the urine to be drawn off every six hours. She was fed by the mouth on the second day after the operation with a tablespoonful of zyminised milk every hour; this was increased gradually day by day, and on the fourth day she was taking four tablespoonfuls of zyminised milk every hour, or forty-eight ounces in the twenty-four hours. The patient was perfectly free from pain, had no nausea, and was rapidly improving. On the fifth day two ounces of zyminised beef-tea and calf's-foot jelly were added to the diet. There was not the slightest pain or tenderness in the abdomen, which was perfectly flaccid and soft. The bowels acted regularly, and on the ninth day from the operation she was transferred to the general ward, and allowed to take boiled fish, beef-tea, port-wine, jelly, eggs, &c. The enemata were now quite discontinued. At the end of a month the patient had considerably gained flesh, and was free from all pain and able to take her nourishment well. The tumour was now to be felt drawn up considerably higher between the ensiform cartilage and umbilicus.—July 3rd: The patient, who had increased much in flesh and was perfectly free from pain and able to take ordinary diet, left the hospital on June 27th. The growth had not increased in size, and there was no pain or tenderness on pressure.

Remarks.—These operations can of course be only looked upon as palliative, and at present it is questionable whether life is prolonged, as a sufficient number of cases have not been yet reported. That the patients are considerably relieved there can be no doubt; the distressing vomiting and constant pain disappear immediately, and the necessity for the constant passing of the œsophageal tube to wash out the stomach is avoided, so that, at any rate, the last months of life are passed in comparative comfort. In the two cases above narrated the disease was very advanced, and any hope of performing the more radical operation of "pylorectomy" negatived. The question naturally arises in cases of carcinoma of the pylorus unsuitable for excision, whether gastro-enterostomy is a desirable operation? Is life prolonged, and is suffering relieved? The point as to whether life is prolonged cannot at present be answered with certainty; but that the patients are relieved there can be no doubt. The next question which arises refers to the immediate risk of the operation. This appears not to be great when it is performed by Senn's method of approximation discs. I have received accounts now of seven cases operated on in this country by this method, not one of which died from the operation. It is true that two of these cases died—one on the sixth and the other on the seventh day,—but both of these succumbed to exhaustion, and I firmly believe they would have recovered had they been fed earlier, as the post-mortem examination proved that so far as the operation was concerned there was perfect union between the stomach and intestine in both cases. There is one point in the performance of the operation which I think is worthy of notice—viz., the importance of uniting the jejunum to the posterior wall of the stomach instead of the anterior. It is, I think, as easy to perform, and must avoid all risk of kinking of the intestine. The method by which I propose to perform it is to draw the great omentum and transverse colon out of the wound, and turn it upon a towel wrung out of warm carbolised water, and tear through the transverse meso-colon, and stitch it by means of a few catgut sutures to the opening formed in the stomach. The posterior wall of the stomach immediately comes into view, and can be readily opened, and adjusts itself to the jejunum or third part of the duodenum quite easily. It is very much easier to keep the plates in apposition by this method than by twisting a loop of small intestine over the colon to the anterior wall of the stomach. I should here like to point out to physicians and practitioners the importance of early diagnosis, as it is undoubtedly only by early excision of the carcinomatous pylorus that a radical cure can be effected. In performing pylorectomy I am strongly of opinion that the high mortality which has hitherto attended this operation is due to two factors—first, the shortness of the portion of duodenum covered with peritoneum making it very difficult to unite it firmly to the cut end of the stomach; and, second, the length of time taken in performing the operation by the method which has been practised up to the present. To avoid this I propose in future to adopt the plan I advocated some time ago of doing pylorectomy and gastro-enterostomy at the same time by invaginating the divided end of the duodenum into itself, and fixing it in position, and by inverting the cut end of the stomach and uniting this by Lembert sutures, and finally by attaching the jejunum to the posterior wall of the stomach as in an ordinary case of gastro-enterostomy. In all cases of doubtful diagnosis I strongly advocate early abdominal section.

Upper Wimpole-street, W.

THE PATHOLOGY OF HAY FEVER.

By J. B. BERKART, M.D.,

LATE PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASE OF THE CHEST.

(*Concluded from page 13.*)

IF pollen is largely concerned in the origin of the form of hay fever previously described, it has but a subordinate share in the production of the one which Phœbus calls "the chest group" and Blackley "the asthmatic variety." A glance at the clinical phenomena of those several forms will at once show the essential differences between them, and lead to the conviction that, notwithstanding their similarity in many points, they are not and cannot be the mere modified results of the self-same cause. As regards the pollen, or rather the dust catarrh, it has been asserted that a person endowed with the peculiar disposition need only enter a room in which fresh grasses or flowers are kept, and forthwith comes the burst of sneezing. So rapid is

pollen in its action than in from one to four minutes its application to the nasal mucous membrane is followed by what is alleged to be a typical attack of the disease.[1] And what is still more significant is that the symptoms proceed from, and throughout remain localised in, those parts with which the irritant comes of necessity first into contact. Far otherwise are the nature and the sequence of events in the asthmatic variety. Here most observers are agreed on the existence of a premonitory stage, which occasionally lasts for days, and consists of "a feeling of weakness, languor, repugnance to food, coated tongue, constipation alternating with diarrhœa, sleeplessness, irritability of temper, and a feeling of exhaustion."[2] Blackley describes it from personal experience as being distinguished by "a frequent and full pulse, with more or less shivering; hot and dry skin, with a bruised feeling in various parts of the body, sleeplessness, &c.—symptoms which usually pass off with a profuse perspiration during some hours."[3] After such constitutional disturbance the local signs manifest themselves; but twenty-four hours or so elapse before they are fully developed.[4] The first among them is itching, at times very severe, of the pharynx and hard palate; the process then spreads to the Eustachian tube and gives rise to a burning sensation and to slight deafness; subsequently it ascends to the nose and provokes the distressing fits of sneezing; and, lastly, it implicates the eyes. At the same time the face is swollen and feels as if it were pressed against a hot sheet of metal.[5] A few herpes vesicles are not infrequently seen on the lips, and occasionally an intensely smarting papular eruption takes place on one side of the neck. Even in its earlier phases the disease is attended by irritation of the larynx and by cough; but the typical attacks of asthma appear only after it has returned for several successive years.

The process here delineated is obviously one in which at first the whole organism participates. When afterwards the local changes appear, they are seen not in the parts which would primarily be exposed to the foreign body from without, but in the more distant ones—the pharynx and hard palate,—and this in spite of the express statement of Blackley that the mucous membrane of the buccal cavity is less sensitive to pollen than that of the nose.[6] Still more remarkable is their tendency to creep from place to place, gradually invading all the contiguous surfaces. It is evident that such a train of symptoms cannot be due to pollen; for neither a mechanical, nor a chemical, nor a thermal agency would remain latent for any length of time; nor could it exert its influence beyond its point of impact. Therefore, the conclusion that the active cause must be one which is capable of reproducing itself appears to be irresistible.

In attempting to analyse that process, one is inevitably reminded of an erysipelatous inflammation. And this idea gains additional ground on due consideration of the visible anatomical lesions. The surface of the pharynx is of a dark-red colour, looking as if it had been coated with a layer of varnish. Occasionally there are small vesicles which soon burst, leaving superficial erosions, especially near the tonsils. Some describe a feeling as if a thin film of some substance were stretched across the mucous membrane.[7] Indeed, if the opportunity be given of examining such cases at an early stage, a fibrinous exudation will then be detected; but on account of its absolute transparency, its existence is often overlooked, and Weigert somewhat bitterly complains of the scepticism of those who will not believe in it, even on post-mortem examination, till they have seen the membrane peeled off.[8] Later on there is a tenacious, reddish-white exudation, which, by its chemical composition and its richness in cellular elements, points to a copious emigration of leucocytes. All those changes are essential, and may readily be distinguished in every case. Not infrequently, however, they are complicated, especially by a phlegmonous inflammation of the tonsils which leads to their destruction. As a rule, bronchitic signs are observed even at the commencement of the disease, and these are due to the morbid products of the pharyngeal cavity being sucked into the air passages. The truly croupous exudation in the bronchi themselves appears only after the lapse of years, and causes the typical attacks of asthma. Meanwhile, the mucous membrane of the nose and pharynx becomes the seat of atrophic and hyperplastic changes from the frequent recurrence of those peculiar nutritive disturbances.

In the circumstances in which the patients are generally seen, there are almost insuperable difficulties to a systematic inquiry into the subject. Hitherto I have only been able to examine microscopically the substance which can be easily scraped off the surface of the affected mucous membrane. In twelve cases, which were still in the stage of "hay fever," the examination disclosed an abundance of chains of cocci varying in size and length; they were found between and within the epithelium, as well as in the meshes of the delicate fibrinous threads. True, such streptococcus is only one of the many innocuous inhabitants of the buccal and pharyngeal cavities, so that its mere presence has no pathogenic significance. But during the prevalence of the disease it is seen in such vast numbers as to apparently occupy the field by itself, repressing, as it were, all the other parasites. That, under specially favourable conditions, even the saprophytic streptococcus may obtain aggressive properties has been admitted by the most competent observers. However that may be, from the clinical peculiarities of the process itself, the effect of the erysipelas germ may almost be postulated, if there is any reliance to be placed on the teaching of bacteriology.

Although this affection unquestionably occurs in the winter, it is yet much more prevalent and much more intense in the spring and in the summer. The explanation of these facts is not far to seek. As regards its prevalence at those seasons it must be borne in mind, that even the smallest of those organisms participates in the revival of energy, which is then conspicuous throughout the entire vegetable kingdom; each of them increases in vigour, in numbers, and consequently also in virulence. To what extent seasons influence microscopic life may be judged from the observations made in the garden of Montsouris. Miquel found that the number of germs, both viable and dead, in each litre of air varied during December from 0·7 to 3·9; whereas it rose to 43·3 in July.[9] Koch also ascertained that, in the deeper layers of the soil, the germs capable of development rapidly diminish with the approach of winter. The tissues themselves are considerably influenced by the higher temperature, which somehow reduces their resistance to the invasion of bacteria. The greater intensity of the symptoms, however, is caused by the atmospheric dust with its pollen, the effect of which is superadded to the erysipelatous inflammation. Considering the influence of those foreign bodies upon a healthy surface, the irritation which they produce upon one in a state of disease must be still more considerable.

The predisposition to this form of hay fever certainly exists only in a limited number of individuals. As regards its nature, it is easier to adduce some facts than to explain their bearing. Age is evidently a powerful element in it. In the vast majority of instances the complaint develops itself in childhood and youth. Thus Bostock was eight years old when it appeared in him, and Blackley reports it to have been seen in a boy of four. Few patients, however, are able to state, with any degree of accuracy, the time of life at which they became subject to it, its symptoms not being sufficiently characteristic in themselves to admit of a diagnosis which, as a rule, is established only after their periodical return for several successive years. On account of the succulence of its tissues, and more especially the softness of the epithelium, the infantile organism would even normally be more liable than the adult to erysipelatous inflammation. But this physiological vulnerability is, in the present case, enhanced, and, what is more, maintained throughout life by a certain constitutional defect. Bostock[10] describes himself as delicate and of spare habit, subject all his lifetime to gastric derangement. And this estimate of himself is somewhat typical of that class of patients. Indeed, all of them bear the unmistakable traces of past rickets. However completely the primary changes in the bones may have subsided, still they invariably leave behind them, amongst other abnormalities, a larger number of vessels with a greater porosity of their walls and an increased tendency to diapedesis on the part of their contents. Although, thanks to the mutual adaptation of the various elements of the body, there may be, even in these conditions, a seemingly perfect state of health,

[1] Blackley, op. cit., pp. 44, 76, and 77.
[2] Blackley, op. cit., p. 167.
[3] Op. cit., p. 186.
[4] Op. cit., p. 171.
[5] Graeme, loc. cit.
[6] Op. cit., p. 176.
[7] Blackley, op. cit., p. 177.
[8] Virchow's Arch., vol. lxx., p. 463.
[9] Les Organismes Vivants de l'Atmosphère, 1883.
[10] Loc. cit.

yet their strained relation becomes at once evident when their energy is taxed in the struggle with an irritant.

It follows, then, from the foregoing considerations that what is commonly called "hay-fever" is not, as alleged, the result of pollen pure and simple, or a special form of disease. Two distinct varieties must be distinguished—the one merely a catarrhal affection, due to pollen *plus* the other solid constituents of the air; the other, an erysipelatous inflammation of the upper parts of the respiratory tract, considerably aggravated by mechanical irritants, which at no other time exist in the air in such abundance as in spring and summer.

Too much importance cannot be attached to a just understanding of the nature of the disease; for undoubtedly the so-called hay fever is the most common forerunner of typical bronchial asthma. All asthmatics declare that before their present disease has assumed its striking characteristics, they had either been for years subject to "hay fever"; or if they trace their troubles to what is loosely called "colds" and "bronchitis," they invariably maintain that they had been worse in the summer than in the winter. It has been sought to establish a diagnosis between hay asthma and bronchial asthma upon the ground that the dyspnœal paroxysms of the former occur only during the day, while those of the latter occur at night. But by Blackley's own showing such is not invariably the case. He himself reports that a lady whom he observed had to sit up for twelve or fourteen consecutive nights.[11] On the other hand, Phœbus, from an analysis of his cases, comes to the opposite conclusion—that in hay fever the dyspnœa increases as the day wears on, and assumes its greatest intensity at night.[12] But in the ordinary form of asthma the attacks arise at all times, by no means oftener in the night than in the day; nor is there between the asthma in summer and that in winter the least difference either in its symptoms or in its characteristic pathological products. Only it has not been sufficiently insisted upon that asthma is, on the whole, by far more prevalent in the summer than in the winter—a fact which has been remarked also by Trousseau, who has consequently called it "*une maladie d'été.*"[13]

If forewarned is to be forearmed, it is first of all requisite to distinguish well between the various forms of the disease. It is obviously easier to cope with a pathological process so long as it is limited to an accessible mucous membrane than to attempt its removal after its invasion of the deeper part of the air passages, and the infliction of irreparable mischief. But in order to obtain that object in view, the diagnosis of the disease must not be entirely based on the state of the weather. The inflammatory processes of the upper part of the air passages are not necessarily a "cold" because they occur in the winter, or "hay fever" because they are seen during the hay season. Each case must be judged according to its merits. The affection, which is entirely localised to the nose and eyes, may be probably due to a thermal or mechanical irritant; the one that simultaneously or rapidly invades the entire upper part of the respiratory tract is an erysipelatous affection which demands all care and attention, especially in children with signs of previous rickets.

It is foreign to the present purpose to enter into the subject of treatment; but considering the gravity of the issue, it is difficult to forbear one word of warning on the methods now in vogue. There is no good ground for hailing with unbounded delight, as a specific for the paroxysms of hay fever, cocaine or similar remedies, which indeed suppress the manifestation of the disease, but leave its cause in undisturbed activity. Let there be no misunderstanding. No one engaged in practice could for a moment dispense with a purely symptomatic treatment. Unfortunately it happens but too often that, when we are best acquainted with the pathology of any form of disease, the most we can do is to alleviate the symptoms. It is a cruel mockery, however, to dally with insufficient measures when otherwise some permanent benefit may be obtainable. Nor is any useful end served by galvanic cauterisation of the mucous membrane of the nose and pharynx or by the destruction of the varicose veins, which, indeed, may be seen on the back of the throat. Such proceeding is just as rational and just as indicated as to destroy the dilated veins in the legs, when the circulation of its deeper parts is temporarily interfered with.

Wimpole-street, W.

[11] Op. cit., p. 184. [12] Op. cit.
[13] Clinique Médicale, 1868, tome ii., p. 452.

AN ANOMALOUS CASE OF SALIVARY CALCULUS.

By EDMUND OWEN, F.R.C.S.

A LADY recently came under my care for a troublesome but painless swelling of the left cheek. The medical man who sent her to me suggested that it was a case of distension of a greatly dilated parotid duct, possibly caused by a salivary calculus. Unfortunately this gentleman did not accompany her on her visit to me, and on the most careful examination I could detect no calculus, but found the cheek of that side somewhat prominent and unsightly. The lady said that she had been bothered by a swelling in that cheek ever since she was four years old, and that sometimes after a meal it was much more conspicuous than it was at that time. She was determined to have something done for the swelling, and I was content to hold my diagnosis as to the exact nature of the soft tumour in suspense until I could make a thorough exploration, which I did a few days later, Dr. Prickett kindly helping. There was then a rounded, doughy swelling of the one cheek, but no calculus was discoverable. Anæsthesia having been produced, and the jaws being separated by Mason's gag, an incision was made through the mucous lining of the mouth and the buccinator, a lobulated piece of yellow fat at once protruding. Gentle traction being made on this, a lipoma of considerable size readily left its bed between the buccinator and masseter muscles. The cheek was then flat like the other. It seemed as if no further treatment would be required, and nothing more was attempted. Within a few days, however, it became evident that the patient did not share our favourable view of the case. She said that on several occasions the cheek had swollen as badly as ever. Never happening to see the cheek, however, when swollen as she described, I thought it not improbable that her imagination supplied her with such evidence as I failed to discover. She was therefore advised to return home and to apply again should she meet with further inconvenience. In a short while she duly presented herself, and directed attention to a small, hard substance, which shifted its position over the masseter; it was evidently the salivary calculus of which her medical attendant had spoken. An attempt was promptly made to extract it through the mouth by reopening the old wound, but on introducing a pair of forceps the concretion slipped away and so effectually concealed itself that further search for it on that occasion had reluctantly to be abandoned. On a subsequent occasion on which the calculus was discovered I leisurely examined it from the outside of the cheek, and found that the limit of its journey forwards was just beyond the hinder border of the masseter, and that with the slightest touch it slipped back into a dilatation of Stenson's duct, which formed a wide chamber behind the angle and ramus of the jaw. From this pouch the calculus could be swept out by firm pressure. Sometimes it was no easy matter to bring it out again, as it hid itself on the inner aspect of the mandibular angle in the capacious chamber. Having been twice disappointed in the treatment of the case when operating through the buccinator, I determined to cut straight down on to the calculus through the cheek, having chased it forwards and secured it by the finger pressed over the hinder part of the masseter. In this way its extraction proved a simple matter. The skin wound, which was closed with horsehair sutures, healed by first intention, giving no trouble whatever as regards leakage of saliva, and leaving a scar which, from the patient's point of view as well as the surgeon's, is now hardly noticeable. The calculus was a phosphatic concretion of the size and shape of a small date stone.

Remarks.—No one who has carefully dissected the face can fail to have noticed the pad of yellow fat which is lodged between the masseter and buccinator, the little pellets of which obeyed the slightest touch of his forceps. But in the case under consideration the mass of fat far exceeded the normal amount, and when drawn out through the mouth constituted a lipoma of a very respectable size. Moreover, the swelling which had previously disfigured that cheek had so entirely disappeared that I felt justified in saying that the operation would prove entirely successful. Probably the irritation caused by the salivary calculus had

brought about an over-nutrition of the fatty pad and so determined its hypertrophy, the other cheek remaining of normal size and appearance. Certainly the removal of the calculus alone would not have restored the symmetry, and had I extracted the concretion on the first occasion I might have hesitated to proceed to the ablation of the buccal lipoma, even if I had made a correct diagnosis of the nature of that swelling. Thus, as possibly not infrequently happens, failure on the part of the surgeon either in the way of diagnosis or treatment, worked for the good of the patient. As regards the removal of the calculus from the outside of the cheek, it is not an operation which one would generally recommend lest a troublesome salivary fistula should result, but, seeing the perfect way in which the wound healed the danger of such a contingency is probably over-rated.

Great Cumberland-place, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SIMULTANEOUS FRACTURE OF BOTH CLAVICLES.

By HERBERT W. PAGE,
SURGEON TO ST. MARY'S HOSPITAL.

THE interesting case recorded last week by my colleague Mr. Owen reminds me of one which was under my care in the Cumberland Infirmary in 1873, and which may be added to the list. A railway porter was brought one night some fifty miles to the hospital under the supposition that he had received severe internal injuries, for his shoulders had been caught sideways between the buffers of two waggons, he was much collapsed, and had great pain at the upper part of the chest. No examination had been made. On admission it was found that the only injury was oblique fracture of both clavicles at corresponding points—the middle of each bone. There was the usual displacement, and as this was most easily and perfectly rectified by lying flat on the back without a pillow for the head, so was he treated, and he presently left with both bones firmly united.

While recording this example of a very rare form of injury I may refer to another which is equally, if indeed it be not more uncommon, and which I had the opportunity of seeing when dresser at the London Hospital in 1869. A woman was admitted with dislocation of her right clavicle at both ends. I forget the precise mode in which the accident had happened, but it had been very severe, and the clavicle was separated from its attachments at both ends, and came to lie almost at right angles to its natural position—the acromial end backwards, the sternal end forwards. The reduction of this dislocation was extremely difficult, and was not entirely successful.

NOTE ON PERCHLORIDE OF MERCURY PELLETS.

By C. J. BOND, F.R.C.S.,
SURGEON TO THE LEICESTER INFIRMARY.

ALTHOUGH not perhaps as fully appreciated as they deserve, the convenience and value of perchloride of mercury in the form of pellets for making antiseptic solutions of different strength are so great that I wish to bring to notice a preparation in which equal parts of perchloride of mercury and chloride of sodium form one pellet, each containing about four grains and a half of the perchloride; these dissolve in a pint of warm water in about three minutes, thus forming a solution of 1 in 2000. The advantages that I claim for this form of pellet—namely, the combination with chloride of sodium instead of the usual chloride of ammonium—are: (1) That solutions of perchloride and chloride of sodium with hard water containing lime do not turn milky, or throw down a precipitate of probably oxychloride of mercury, as is often the case with solutions made with the double salt of ammonium chloride and mercury after standing a short time. This is important, as it is often impossible in private practice to obtain distilled water, and a solution so precipitated loses much of its antiseptic value. (2) The solution is neutral and not acid, as in the case of the ammonium salt; moreover, chloride of sodium is a natural constituent of the blood serum and other fluids of the body. The perchloride of mercury alone, and the ammonio-chloride and the sodium salt, all precipitate albumen, and consequently throw down a milky precipitate when in contact with serum in wounds; the addition of a little free acid will redissolve this, and it would thus appear at first as if the acidity of the ammonium salt would be here of value, but it is not so, the ammonium salt precipitating equally with the others. Moreover, the above advantages apply also in the case of strong standard solutions of perchloride and of the liq. hyd. perchloridi of the Pharmacopœia, which is practically a solution of a double salt of ammonium chloride and perchloride of mercury of the strength of 1 in 1000. Although it is no doubt necessary to use some salt, such as the ammonium chloride, to prevent the perchloride of mercury from decomposing into calomel and free HCl, which it would do if used alone in solution, and also for the purpose of increasing the solubility of the perchloride in strong solutions, yet it seems to me that both these objects are equally obtained by using the sodium chloride salt, and, moreover, without the disadvantages of the milky precipitate when dispensing with ordinary non-distilled water, or the crystallisation and deposit round the stopper of the bottle, which occur with strong solutions of the ammonium salt. In fact, it would seem desirable that the Pharmacopœial preparations should be made with chloride of sodium and not of ammonium.

Leicester.

URETHRAL CALCULUS OF LARGE SIZE IN A BOY TWO YEARS AND A HALF OLD; OPERATION; CURE.

By A. IRWIN BOLTON, M.B., A.B.

S. F——, a fine healthy Bulgar boy aged two years and a half came under my care on June 1st, 1890, suffering from anuresis and frequent painful spasm in the region of the bladder. There was also continuous priapism, great tenesmus at the anus, and consequent difficulty of defecation. Suspecting stone I passed a small sound, and found a calculus lodged in the urethra close to the bladder. The stone was felt to be firmly impacted in the canal, but still there was constant stillicidium urinæ. I advised immediate operation, but this would not be heard of by the parents. As an alternative I prescribed frequent hot camomile baths, and bromine with sedatives and soda internally. The case went on so from day to day, spasms of the urethra being frequent and violent. The child, during these spasms, resembling, as the mother remarked, a woman in the pains of labour. Sleep was seldom obtained, and then only for a minute or so at a time. I was frequently called to visit and prescribe until June 20th, when I refused to attend further unless allowed to operate. The assent was given. At this time the stone had advanced into the scrotal portion of the urethra, and had become securely fixed. The anuresis also now became complete and the bladder distended. The child having been anæsthetised (equal parts of ether and chloroform), I cut direct on to the stone through the raphe of the scrotum, using a squeezing pressure forwards, and with the aid of a probe the stone came away. A No. 4 olivary elastic catheter was at once passed into the bladder, and the incision closed with carbolised catgut sutures. Strict antisepsis was aimed at. The child was securely bandaged and bound to its cot, and I gave orders that it should so be retained until I came the next morning. On my visit the following morning I found the patient had been unfastened and the catheter withdrawn because he cried so much. The mother said it did not matter, as the child could urinate freely. I found this statement only too true, for he urinated more through the wound than the urethral orifice. I now passed again the catheter, and fortunately without difficulty. The wound was well cleaned with corrosive sublimate solution, and the child securely bound in its cot. On June 25th the wound had healed and the child was well.

The calculus weighed three grammes (about forty-five grains). It was oblong in shape, two centimetres long by one and one-sixth broad. The centre was very hard, evidently of urate formation. The surface was covered with a phosphatic layer.

Kustendjie, Roumania.

ON THE DIETETIC TREATMENT OF TROPICAL DIARRHŒA.

BY ARTHUR NEVE, F.R.C.S. EDIN.,
SURGEON, MISSION HOSPITAL, KASHMIR.

"THE affectation and empiricism of regarding particular articles of food as of universal application must be avoided"; so writes Dr. Morehead in reference to dieting for bowel complaints in India. Recently I have seen many statements by eminent authorities that milk and milk only must be given in Hill diarrhœa. Hill diarrhœa is described as characterised by numerous fluid evacuations, usually copious, pale in colour, pea-soupy, without blood or mucus, but curdled and frothy, and often bad-smelling. The type is one with which physicians at Indian Hill stations are familiar. It is perhaps less common in Kashmir, as the journey here is one that only the comparatively robust would undertake; but I have seen a considerable number of cases. The dictum that milk is the only permissible diet contains some truth, but with many exceptions. The following is a striking example:—

Captain A——, after prolonged fever, started for Kashmir. On the journey he picked up strength; but the day after crossing a lofty pass (11,500 ft.) diarrhœa began. His companion was a doctor of the Indian medical service, and treatment was at once commenced. The latter having with him THE LANCET of April 13th, 1889, with a paper on the subject by Sir J. Fayrer, a milk diet was ordered, and persevered with, in an intelligent manner. After a month's treatment the patient was in no way better. He then came under my care. The diarrhœa was of a typical character. The patient dressed warmly, rested all day, and was scrupulous in following the directions given. For three weeks I treated him without any substantial gain. The copious yellow, frothy fluid discharge continued two or three times a day. At first one or two drugs (such as ipecacuanha, rhubarb, and calomel) appeared beneficial. I began to think of sending the patient to a lower altitude and warmer climate; for Gulmory is 9000 feet above the sea. Before doing this I resolved to try a complete change of diet; not to allow a drop of milk, but a simple meat diet with a little toast and weak tea. The day the change was made the diarrhœa stopped, and did not recur. A week later all restrictions were withdrawn, and Captain A—— started on a mountain journey, undergoing cold, fatigue, &c., without any harm. The practice of changing diet is familiar to all. In this case, I believe, it was suggested to me by the following sentence in Dr. Lauder Brunton's Croonian Lectures:[1] "Another mode of destroying the activity of bacteria is to starve them out by substituting a new diet for that to which they are accustomed. For this reason Vaughan recommended that in infantile diarrhœa beef-tea, rice-water or pure water should be given instead of milk for some days, until the bacteria should have died out." In the case of Capt. A—— much of the fluid appeared due to deficient skin action. The indication appeared to be to diminish the amount of ingested fluid, and to supply the gastric glands with healthy occupation. Whatever the *modus operandi* a striking result was obtained. I have known many other cases in which milk diet has been less successful than a mixed diet. In short, it does not appear to me either scientific or satisfactory to reduce the treatment of Hill diarrhœa to a mechanical unvarying administration of milk.

Kashmir.

[1] THE LANCET, vol. i. 1889, p. 1290.

NEW PARK.—On Monday, July 7th, his Royal Highness the Prince of Wales, who was accompanied by the Princess of Wales, the Duke of Edinburgh, the Princess Louise, and the Princesses Victoria and Maud, opened the Vauxhall Park for public use. The new park is situated in the very heart of a densely populated neighbourhood, and thus forms a most important breathing space.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

MIDDLESEX HOSPITAL.

SUPPURATING DERMOID OF RIGHT OVARY OPENING INTO THE BLADDER; ABDOMINAL SECTION; CURE; REMARKS.

(Under the care of Dr. WILLIAM DUNCAN.)

THIS case is a good illustration of the difficulty in diagnosis presented by some forms of pelvic tumour, also of the difficulty occasionally presented in their treatment. Dermoid tumours are said to average about 7 per cent. of the cases of ovarian tumours, and are the most liable to rupture. According to Nepven,[1] out of 100 cases of rupture of ovarian cysts the rupture takes place into the bladder in 4, into some part of the intestine in 7, in 4 through the anterior abdominal wall, and in about 2 per cent. into the uterus or vagina. We refer our readers to Dr. Duncan's remarks on the case. For the following notes we are indebted to Mr. Montague Tench, obstetric and house physician.

B. A——, aged twenty, single, was admitted on Sept. 3rd, 1889, into Prudhoe Ward. Her family history was good; father and mother both alive, brothers and sisters strong and well. No history of cancer, rheumatism, gout, or phthisis. The patient's previous history was good. She had measles in infancy, and in June, 1888. Her present illness commenced in September, 1888; when, going to bed one night, she felt rather poorly, but accounted for it by the "period," which was due. On the following morning she woke with severe pain across the lower part of the abdomen, accompanied by the "flow," which was less than usual. The pain passed off, and the following evening she got up: she had more pain again when she went to bed, and felt very faint. The pain now gradually became worse, and was confined chiefly to the right side; it was dull and aching in character. A doctor was called in, who prescribed opium pills and ordered linseed poultices to the abdomen. She was confined to bed till Dec. 20th, 1888. On Dec. 24th she went to Worthing, where she remained till February (six weeks). During her stay she was fairly well, with the exception of occasional attacks of pain in the right side. In March, 1889, she felt "seedy," and seemed never to have regained her former strength. On the evening of April 3rd she had a shivering fit. The next day she kept her bed. A week after she was attended by a doctor, and has since been confined to bed (five months), taking medicine and pills, with local applications externally in the shape of poultices and blisters. During the last five months she had repeated shivering fits, with profuse sweating at night. In April she noticed a slight swelling in the abdomen, which has gradually increased. During July and August her urine was very thick and offensive at times, at others fairly clear. She experienced much pain on defecation at first; bowels very constipated. Hot vaginal douches during the last five months have given much relief. She lost flesh considerably up to two months ago; since then has gained slightly. The catamenia began when she was between thirteen and fourteen years of age, lasting seven days (twelve to fourteen diapers), accompanied by much pain, coming on just before and lasting the first day. No clots or shreds passed; has always been irregular, sometimes missing one, two, or three periods before present illness. Since the preceding history: August, 1888, period natural; September, 1888, period scanty and great pain; October and November, missed; December, profuse; January and February, 1889, normal; has seen nothing since (six months).

On admission the patient's temperature was 99·4°; pulse 99; respiration 16. She was a pale-faced girl, sparely nourished, and complained of a swelling in the lower part of the abdomen; the heart and lungs were normal; pulse soft, small, regular, compressible. The abdomen was pro-

[1] System of Surgery, Treves, vol. iii., p. 402.

minent about the hypogastric region, flat above the umbilicus; the hypogastric prominence was fairly symmetrical, no enlargement of superficial veins. On palpation there was marked fulness and resistance of hypogastrium, where an ill-defined swelling could be felt, extending laterally almost into the iliac fossæ, more marked on the right side; the upper limit appeared to be about three inches and a half above the umbilicus, surface regular; bimanually indistinct deep fluctuation could be felt. No distinct wave was obtainable; percussion note over the whole swelling decidedly tympanitic; below umbilicus on the right side indistinct friction to be heard. On vaginal examination a large, hard, smooth swelling could be felt in the right lateral fornix and Douglas's fossa, quite immovable, rather tender, and apparently continuous with the lateral pelvic wall. The cervix uteri was pushed over to the left side, the os looking forwards and to the left; mobility of uterus impaired. The swelling felt per vaginam was continuous with that felt on abdominal examination; obscure fluctuation to be obtained. The rectum was found loaded with hard scybalous masses. The urine was loaded with pus, some specimens consisted of nothing else; sp. gr. 1020, acid, highly offensive odour, little or no mucus.

Sept. 13th.—At 1.30 the abdominal cavity was opened by the usual median incision. On the tumour being exposed, it was found not to be an abscess, shut off from the rest of the peritoneal cavity, but a well-defined, smooth cyst; very adherent on the right side to the floor of the pelvis, the structures of which were all matted together. Fluctuation was readily detected. As it was out of the question to remove the whole *en masse*, the cyst wall was carefully stitched to the peritoneum and abdominal walls by fine silk sutures, in the course of which a large vein was punctured, which was with difficulty picked up by means of torsi-pressure forceps and ligatured; dressings of iodoform, boracic lint, and blue wool. 9.30 P.M.: On return to bed the patient was rather restless and very sick; this has since ceased. Has had slight pain, and but little sleep through the night. Is troubled with her urine, which dribbles away in spite of catheter having been passed. Temperature 99°; pulse 90. Milk and soda, one ounce every hour.

15th.—Temperature normal. No pain, no sickness; urine contains a large quantity of pus, is very offensive and acid; sp gr. 1025.

18th.—No elevation of temperature; bowels unopened; feeling some discomfort; wound not dressed yet.

19th.—A little pain in the left side, dull aching in character; pus in urine, varies greatly in quantity; appetite poor; going on well.

23rd.—At 1.30 chloroform was given, and the cyst was found to be firmly united to the edges of the wound, so a sound was passed into the bladder to ascertain its position; then a trocar and cannula were inserted into the cyst, and a quantity of green, very offensive matter withdrawn, much more glutinous in consistence than ordinary pus. The cyst wall was then incised by means of Paquelin's cautery, and was found to be about an inch thick; this green matter then poured out freely, about one pint in all. Very little hæmorrhage occurred. A Keith's drainage-tube was then inserted, and the cyst was washed out with a large amount of mercury solution (1 in 2000), and dressed with the usual dressings.

24th.—Cyst irrigated during last evening; a large quantity of highly offensive discharge removed. Was in a good deal of pain, so a quarter-grain morphia suppository was given. Slightly sick. This morning there was a good deal of discharge, but not so offensive. Cyst irrigated with two drachms of tincture of iodine in a pint of water. 10 P.M.: Rubber tube inserted instead of glass. Cavity washed out; extremely fetid.

25th.—Marked general improvement. Less pus in urine; not so much discharge and not so fetid. Taking her food better.

Oct. 10th.—Gaining flesh; much better. Urine passed less frequently, with little pus, but containing some granular matter looking like sebaceous material; no hairs to be detected in it. Bowels opened regularly.

16th.—Drainage-tube changed; shorter and smaller one put in. Has been up for a few evenings.

22nd.—Temperature 101°; pulse 120. More tenderness than usual on the right side of the wound, where there is some induration; a good quantity of discharge squeezed out of sinus when the drainage-tube is removed. Enema simplex; bowels unopened.

23rd.—More discharge this morning; still some tenderness; but on the escape of some pent-up pus the temperature fell to 99°. She has not been poorly for eleven weeks.

24th.—Temperature 101°. Tube came out. Opening "gummed over." A thick probe passed into the cavity for three inches and a half, and about six drachms of thick healthy pus escaped. Urine keeps clear; bowels confined.

26th.—Temperature 102°. Discharge from wound scanty; urine clear; tenderness on right side. Sinus dilated with Hegar's dilators (7, 8, and 9), and a large drainage-tube inserted. Urine containing pus again; great deal more discharge through sinus.

31st.—Urine contains a large quantity of pus; sinus discharging freely; no smell; irrigated continually. Two drachms of cod-liver oil and iron three times a day. Six ounces of port wine daily, Brand's essence, with a stimulating diet.

Nov. 4th.—Discharge very free. Temperature rose last night to 100°, and fell to normal this morning; pus thick and healthy; urine clearing.

7th.—Not quite so well. Temperature rose to 101° last evening; there is some tenderness and fulness deep down to right of wound; bagging of pus.

9th.—Temperature last evening 103°, with shivering and very free sweating; complaining of severe headache; pulse, 136; ordered sulphate of quinine, ten grains; cavity well irrigated; little discharge; on right side of wound some tenderness and fulness; no pus escapes on pressure. Vaginal examination: Still an indistinct swelling felt in the region of the right broad ligament, tender upon pressure in an upward direction. Half an ounce of pus escapes through abdominal wound.

11th.—Temperature has remained normal for the last few days; urine very full of pus, but is nevertheless better.

12th.—Taken to theatre and anæsthetised with a view to making a vaginal counter-opening, but this was found impracticable owing to the bladder being bound over on the right side. Any opening that could have been made would probably have wounded this viscus; the interior of the cyst was scraped with a Volkmann's scoop, and the whole thoroughly irrigated; vagina packed with tampons.

20th.—Marked improvement. A very free discharge from the abdominal opening of thick pus mixed with urine. Quantity of pus passed per urethram much diminished. Vaginal examination: No bagging of pus; tampons omitted.

28th.—Slight elevation of temperature. On vaginal examination, a few drachms of pus found to be bagging in the right posterior cul-de-sac.

29th.—Shivering last evening; temperature 102°; headache. Effervescing mixture of citrate of potassium with four grains of sulphate of quinine was given. Vaginal examination: three ounces of pus found bagging on the right side; emptied by pressure.

Dec. 1st.—Temperature rose to 103° last evening; headache; pain in right iliac region; no rigor. Ten grains of quinine were given and an ice-bag applied to the head. Copious sanious vaginal discharge, having all the characters of a catamenial flow. Present pain on the right side like that which accompanies each menstrual flow; sinus dilated with forceps. Larger drainage-tube inserted; well irrigated. Discharge tinged with blood; latter detected before manipulation took place.

2nd. — Better. Discharge blood-stained; much less. Temperature 99·4°.

5th.—Period still continuing; general improvement; no pain; temperature normal; discharge per sinus no longer blood-stained.

8th.—Temperature last evening 101·4°; this morning 103°. Period has ceased. Vaginal examination: Some bagging of pus in vagina; squeezed out, thoroughly irrigated; headache, and tenderness on right side.

9th.—Temperature last evening 103·2°; this morning 98·2°. Much more discharge, dirty-brown in colour and very fetid (? fæcal). Vaginal examination: Three drachms of pus pressed out of right posterior fornix. Glycerine tampons inserted.

14th.—Improved. Temperature normal. Still some bagging of pus. Urine almost free from latter.

26th.—Taken to theatre and anæsthetised. A long probe was then passed down through the abdominal wound to the

roof of the vagina; this was made to bulge, and the point cut down upon by Paquelin's cautery; it was then passed on and made to protrude through the vaginal orifice. A piece of drainage-tube a foot and a half long was fastened on to the end of the probe and drawn through; the two ends then united in front of the symphysis. Vagina and tube irrigated out, and patient returned to bed.

27th.—Only slight discharge through the abdominal wound, almost all which is small in quantity, coming from vagina; no urine in dressings; temperature normal. No pain. Urine passed naturally.

28th.—A little urine in dressings, probably the result of using bedpan; otherwise well. Weight, 6st. 13lb. 10oz.

29th.—Period commenced to-day, finished on Jan. 2nd, lasting four days. Very little discharge from wound or vagina; daily irrigated. Urine contains very slight quantity of pus.

Jan. 10th, 1890.—Has had an attack of influenza, temperature rising to 102°; she recovered in about two days. No discharge through abdominal wound, very little through vagina.

21st.—Commenced to be unwell. This is the third period since the operation.

26th.—The period has ceased, after lasting five days. No pus made to emerge through abdominal wound when pressed up from vagina; daily irrigated; gaining weight—7st.

Feb. 1st.—Goes home to-day, with tube through the abdomen and vagina. No discharge; cyst cavity almost entirely closed; very marked improvement.

April.—Tube removed at the commencement of month; only thickening to be felt on right side; cavity closed.

July 1st.—Patient feels and looks perfectly well. Menstruates regularly. Bimanual examination shows that the tumour has completely disappeared. There is still a little thickening in the right quarter of the pelvis.

Remarks by Dr. DUNCAN.—This case presents several points of much interest. The history and physical signs were exactly those of a suppurating pelvic cellulitis. Indeed, such was my diagnosis, and I cut down upon the abdominal swelling with a view of making a large counter-opening into the abscess. This is always necessary when a pelvic abscess has opened into the bladder, as otherwise, owing to imperfect drainage, the case drags on indefinitely, and cystitis, with other complications, aggravates the patient's condition; whereas, when a free exit is made for the pus elsewhere, the bladder opening soon closes. In the case just recorded, instead of cutting into the sac of an abscess, I laid open the peritoneal cavity, and then found that the case was one of dermoid tumour of the right ovary. The question now arose, What is best to be done? One naturally wished to remove the tumour, but on passing my hand into the pelvic cavity the growth proved to be so universally and densely adherent to the uterus, bladder, and pelvic walls that I reluctantly decided it would be unjustifiable under the circumstances to attempt its removal; so I stitched the tumour to the edges of the incision in the abdominal wall, and (ten days later when the peritoneal cavity was completely shut off) made an opening into it. The patient's condition rapidly improved after this. She put on flesh, looked quite different, and soon only traces of pus were to be found in the urine. Later on as some bagging of pus took place in the most dependant part of the sac, accompanied by high temperature and rigors, the patient was anæsthetised with a view to making a counter-opening into the vagina. As, however, the sound in the bladder passed over to the right side of the pelvis, it seemed to me that I must necessarily cut through this viscus in getting to the abscess, so the attempt was given up; but owing to the pyrexia and rigors continuing more or less for some weeks, I determined at all costs to get an opening into the vagina. Luckily this was effected without wounding the bladder, and from that date she made a complete and uninterrupted recovery. She wore the drainage-tube for three months without inconvenience, and when it was removed the apertures speedily closed. The case shows the impossibility of diagnosing sometimes between a suppurating tumour and a cellulitis going on to abscess. It also teaches the important fact that an ovarian tumour may disappear if free drainage be made through it; so that if an ovarian cystoma were met with where it was deemed impossible to effect its removal, it seems to me that treatment similar to the above might be carried out with hopes of success.

ROYAL ALBERT HOSPITAL, DEVONPORT.

A CASE OF EXCISION OF THE UPPER JAW FOR NASO-PHARYNGEAL POLYPI.

(Under the care of Mr. GEORGE THOM.)

THE subject of treatment of naso-pharyngeal polypus has received considerable attention at the hands of the profession during the last few years, and as the various procedures which have been employed are numerous, we cannot enter into a consideration of them in the space at our disposal. Mr. Jacobson,[1] writing on the choice of operation, says: "On the one hand, there is the desire to get the growth away with as little mutilation and danger to his patient as possible; and, on the other, the fact that these growths are most certainly malignant in nature, and that any partial operation, while probably as difficult and as bloody as one on a larger scale, will, if incomplete, be certain to lead to increased growth in the tumour by the irritation which it causes; while for naso-pharyngeal polypi which come early under treatment, in which the growth is of moderate size (i.e., not larger than a hen's egg), with a pedicle situated well forward in the roof of the pharynx or within easy reach from the posterior nares, especially polypi which can be made out to occupy chiefly the region of the nose, such operations as those of Lawrence, Nélaton, or the first one of Langenbeck's may be made use of." In this case the advantages presented by excision of the upper jaw were many, and the tumour was apparently completely eradicated. We hope that the ultimate result will be communicated by Mr. Thom on some future date, for these growths are only too apt to recur. For the notes of the case we are indebted to Mr. J. Harley Gough, resident medical officer.

T. W——, aged thirty-five, was admitted into the Royal Albert Hospital on Dec. 19th, 1889, suffering from naso-pharyngeal polypi. His history was that seven or eight years ago the left nostril became blocked with a polypus, and four or five years later the right one began to get stopped up. The only treatment he adopted was the occasional use of some snuff, which he thinks did him good. About a month or six weeks before coming to the hospital difficulty in breathing commenced, which rapidly got worse, being especially bad at bedtime, so much so that he often got up in the night and went for a walk to get "more air." On admission the patient was an active and strong-looking man, but had a tired, anxious, and worn expression. He had considerable difficulty with his breathing, and his speech was unintelligible. Both nostrils were blocked with polypi, and on looking at the throat the soft palate was pushed forwards, and a hard growth could be felt with the finger behind it, apparently growing from the base of the skull. There were no enlarged glands in the neck. The morning after admission tracheotomy was performed without an anæsthetic, for the dyspnœa was urgent. On Jan. 2nd, 1890, the patient was put under chloroform, administered through the tracheotomy tube. A careful digital examination was made, after which it was decided to excise the left upper jaw, as the tumour appeared to originate from the left side of the base of the skull. The pharynx was plugged with a sponge. An incision was made commencing just below the outer left canthus, and continued below the eyelid to the inner canthus, and then along the side of the nose and through the mesial line of the upper lip. This flap was dissected up, and the malar bone, the hard palate, and the alveolar process were sawn through; the inner angle of the orbit was divided with bone forceps. The upper jaw was seized with Lion forceps, and forcibly wrenched out, the remaining adhesions being severed with scissors. The tumour was clearly exposed, and was found to be growing principally from the left internal pterygoid plate. It was completely removed with its bony attachment, and also the polypi from the right nostril. The hæmorrhage, which was free, was checked, and the margins of the incision brought together with catgut sutures. The sponge was removed from the pharynx. The tumour, after removal, was about the size of a small Tangerine orange, and was fibroid in character. The patient soon rallied from the effects of the operation, and the tracheotomy tube was removed four days later. On Jan. 7th the patient got up, and on Feb. 1st, 1890, left the hospital cured.

[1] The Operations of Surgery, p. 13.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Fever in Childbed.

A MEETING of this Society was held on Wednesday, July 2nd, Dr. A. L. Galabin, President, in the chair.

Dr. ROBERT BOXALL read the remainder of his paper on the subject of Fever in Childbed. Among other conclusions, he submitted that the gradual decline in the number of fatal cases observed in the early months of 1884 was brought about in part by systematic attention to points of general hygiene, more particularly by the midwives and nurses, and in part by the progressive elaboration of details concerning the use of the antiseptics employed. That the marked improvement which took place in May of the same year was effected partly by the substitution of sublimate for carbolic and Condy, as the general antiseptics in use, and partly by the continuance of the same beneficial influences. Attention was also drawn to the fact that, as no change had been made in the method of administering the douche, its mechanical and ecbolic effects had remained unimpaired. That as the strength and character of the antiseptic agent employed in the douche solution had been the only variable factor, corresponding variations in the condition of the hospital afforded evidence of their comparative value. Such variations were shown to have taken place; for when the sublimate douche solution was reduced in strength, and, again, when the sublimate douche solution was replaced by salufer, the death-rate rose and septicæmia reasserted its influence. It was remarkable that the only three deaths which had occurred from septic poisoning during the last five years should have taken place in the two short intervals, amounting together to less than twelve weeks, during which these solutions were used. It was pointed out that unless such an antiseptic solution was used as was capable of effectually and rapidly destroying septic material, and unless the external genitals were carefully washed beforehand with a similar solution, the routine employment of the douche during puerpery was liable, from the danger of unavoidably introducing septic material, to be attended with positive danger to the patient, and that under such circumstances its mechanical and ecbolic advantages might be more than counterbalanced by its want of sepsis-destroying power. Unless and until the manifold sources of septic infection could be traced, and with certainty dealt with outside the body, the routine employment of the douche required no defence.

Dr. BRAXTON HICKS said that he had read a paper at the Dublin meeting of the British Medical Association many years ago on the Use of Antiseptic Uterine Injections. On that occasion he was opposed by the late Sir James Simpson. He considered that care should be used in injections, especially if the patient was restless, as the thoracic movements caused a tendency to the indrawing of fluids.

Dr. HAYES regretted that Dr. Boxall had not included in his report the period when he and Dr. F. Barnes were physicians to the hospital. In 1879, upon the reopening of the hospital under an entirely new *régime*, the antiseptic rules adopted were those drawn up by Sir Joseph Lister. Absolute phenol 1 in 20 was the antiseptic used for hands and instruments, and 1 in 40 for vaginal injections. The results were highly satisfactory. He had had only one case of serious illness, and that was one of sapræmia induced by unquestionable disregard of the antiseptic rules. The patient recovered. He had adopted vaginal injections with 1 in 40 or 1 in 80 carbolic acid in every case for the first week after labour.

Dr. F. BARNES used no vaginal injections, and his cases had done equally well. He was struck with this at the time, and he now thought that vaginal douching after labour as a general rule was unnecessary—indeed, with the ordinary run of nurses, was dangerous. They were careless about the cleanliness of the tubes, &c. He had, therefore, given it up unless the lochia became offensive, or the patient showed symptoms of illness. In suitable cases he advocated intra-uterine injections. He recommended antiseptic absorbent wool in place of diapers.

Dr. WALTER GRIFFITH thought there was greater risk in lying-in hospitals than when a patient was confined in her own home. If doctor, nurse, and instruments were clean, all routine douching could be done away with. On the other hand, most people accustomed to habits of cleanliness preferred the douche night and morning for the first few days after labour.

Dr. LEITH NAPIER did not think, with Dr. Grigg, that a single intra-uterine injection of one-sixteenth of a grain of perchloride of mercury would prevent or check the development of septicæmia. He asked whether the risk of routine douching was not greater than that of waiting until indications for douching arose. In inflammatory puerperal cases he thought that frequent douching was hurtful and that vaginal suppositories of iodoform were preferable. Mercuric perchloride was, on the whole, the best antiseptic for the purpose. At present creoline answered well and was non-poisonous.

Dr. CULLINGWORTH said he was responsible for having introduced salufer in the General Lying-in Hospital as a non-poisonous substitute for perchloride of mercury. At present he considered routine douching essential in lying-in hospitals, but not in private practice, and he mentioned that in the lying-in hospitals of Boston and New York the best results were not obtained until the douche had been deliberately abandoned. He thought possibly the salufer had failed through the clogging of the valves and apertures of the apparatus by the salufer which was thrown down from the solution in considerable quantity. He highly recommended wood-wool pads.

Dr. BOXALL, in reply, said that the intra-uterine douche was reserved for cases in which the hand or some instrument had been introduced into the uterus, or in which the fœtus was macerated or decomposed, or, again, in which clots or pieces of membrane were retained. In hospital and private practice he did it in such cases immediately after labour, but only exceptionally during puerpery, and in these he usually employed a soft rubber catheter or piece of elastic tubing. He thought much harm might be done by douching whenever the discharges were foul. The parts should be examined, beginning at the vulva and washing any part where decomposition was taking place. He thought 1 in 1000 sublimate solution far less irritating to the hands than 1 in 20 carbolic acid solution. He employed a 1 in 2000 sublimate solution during labour and immediately after delivery, but gave, as a rule, no douche during puerpery. No advantage had been gained by using iodoform suppositories in addition to intra-uterine irrigation, nor did he think they were efficient substitutes for irrigation. He recommended absorbent cotton in place of napkins, and preferred it to wood-wool. He advocated the use of strong antiseptics in all cases, because weaker solutions were not so certain in preventing sepsis when the tissues were bruised or otherwise weak.

The following specimens were exhibited:—

Dr. HERMAN: Decidua Vera et Reflexa from a very early Abortion.

Dr. CULLINGWORTH: Ruptured Tubal Gestation.

The next meeting of the Society will be held on Thursday, Oct. 2nd.

"THE DWELLING-HOUSE IN ITS RELATION TO PULMONARY CONSUMPTION."—Dr. Thorne Thorne delivered a lecture on this subject to the members of the Leamington Medical Book Society on Saturday evening. He said that the first point to be observed in a dwelling was to see that it rested on a dry subsoil. The importance of this was shown by the fact that at Leicester the death-rate from consumption sank from 43 to 29 per 10,000 after the carrying out of an efficient system of drainage. Space for the free movement of air round a dwelling should be secured, and also for a through current of air from back to front.

VICTORIA HOSPITAL, FOLKESTONE.—The Duke of Edinburgh formally opened this new hospital, which has been erected to commemorate Her Majesty's Jubilee, on the 3rd inst. It is a commodious and well-arranged building, will contain between thirty and forty beds, and has cost £7000.

Reviews and Notices of Books.

Physical Diagnosis: a Guide to Methods of Clinical Investigation. By G. A. GIBSON, M.D., D.Sc., F.R.C.P. Ed., and WILLIAM RUSSELL, M.D., F.R.C.P. Ed. Edinburgh and London: Young J. Pentland. 1890.

IT is abundantly evident that much greater attention is being paid to practical and tutorial instruction in medicine than formerly used to be the case. Without wholly agreeing with the opinion recently expressed in the august body that has the duty of supervising the education and examination of the medical student—namely, that systematic lectures might profitably be dispensed with,—we yet think it most essential that no means should be wanting for efficient clinical instruction, and that such instruction should itself be systematic. That this is a general opinion is, we think, to be seen in the numerous text-books issued of late years, the purpose of which has been to guide the student in the employment of the various methods of diagnosis. The book before us is the latest addition to this class of literature, and in substance it compares well with its predecessors.

Although there is not much scope for originality in the order and arrangement of the topics treated in handbooks of this class, yet the value of such a book does not depend on this so much as on the clearness and accuracy of the descriptions it contains. Herein Drs. Gibson and Russell have been certainly successful: they have wisely avoided entering into controversial matters, and have aimed at lucidity. This quality is perhaps most striking in the chapter on the physical examination of the heart. It contains, moreover, many passages showing that the authors have particularly studied the varied aspects of this interesting subject. The student is reminded that visibility of pulsation in the third to the fifth interspaces to the left of the sternum is of even more value as a diagnostic sign of right-sided enlargement than is epigastric pulsation; that the deep percussion dulness is more important than the superficial; and that the tricuspid systolic murmur is far more common than is mostly admitted. The subject of hæmic bruits is clearly set forth, whilst not the least useful portion of this chapter is that devoted to the study of the pulse, which includes a satisfactory account of the sphygmograph and its teachings. We observe in the following chapter an interesting tracing of the respiratory movements in Cheyne-Stokes breathing. The generally accepted explanation of relaxation of lung tissue as productive of a tympanitic percussion note is held not to be satisfactory, but no alternative is suggested. The authors adopt the view that the breath sound over the lung is due to the alteration in the laryngeal sound from its transmission through the spongy lung tissue. In speaking of variations in nomenclature of auscultatory signs they truly say: "As a matter of fact, we have hardly made any advance on Laennec's work, and this is scarcely to be wondered at, when it is realised that the auscultatory phenomena recorded by one observer convey no sufficiently definite and distinctive impression to the mind of another to enable him to reproduce in imagination the sounds which were heard" (p. 147). The section on the sputa strikes us as capable of further expansion, and it might with advantage have been illustrated. It should, however, be remarked that there is no lack of excellent illustrations throughout the book, many of which are executed with great delicacy and finish. The sections on the examination of the abdominal organs are less fully detailed than those on that of the thoracic; and we miss any separate description of the diagnosis of abdominal tumours. The chapter upon the urine is sufficiently ample. We note that the hypobromite method of volumetric analysis for urea is preferred, but it is pointed out that its results, to be accurate, require correction according to pressure and temperature. The chapter on the nervous system opens with some description of normal anatomy and physiology, and it also includes rather extended directions for testing the alterations in sensory functions, especially those of sight and hearing. Besides this, the examination of the eye and ear is treated in a further chapter. Thus the compass of the work is fairly complete, and its general accuracy will make it a very useful companion to the clinical student.

A Manual of Clinical and Practical Pathology. By W. ESSEX WYNTER, M.D., B.S. Lond., M.R.C.P., F.R.C.S., and FRANK J. WETHERED, M.D. Lond., M.R.C.P. London: J. & A. Churchill. 1890.

THE object with which this book has been written is a praiseworthy one, and, so far as we can judge, it has been fulfilled in a thorough and careful manner. For the student must often have experienced the need of a work which shall serve as a handbook to laboratory methods and systems as applied to clinical and pathological work. He may find in various text-books some of these subjects treated, but it is obviously of great advantage to possess a single volume which shall be confined to their practical study, and which shall at the same time comprise topics which are seldom to be found, except in a more or less isolated form, among the manuals of pathology and medicine. The numerous works upon clinical diagnosis which have appeared of late, excellent as they are, do not cover so wide a ground of laboratory work as does this book, which we owe to Drs. Wynter and Wethered. It may be said, then, without contradiction, to occupy a place not hitherto precisely filled, and therefore to possess a special utility. In the main its scope is that of microscopical examinations, but this is only because most of the methods of laboratory research at present available in medicine are of this class. A notable exception to this is to be found in the chapters on the Examination of the Urine, where full details are given for the chemical analysis of this fluid, and a similar line of investigation is described in the case of Morbid Fluids and Discharges, which form another chapter. The first chapters deal with Pathological Histology, commencing with a description of the apparatus and reagents required. Separate chapters are devoted to the (1) Examination of Fresh Specimens; (2) Injection of Tissues; (3) Selecting, Hardening, Decalcifying; (4) Section Cutting; (5) Staining; (6) Clearing and Mounting. In all these one is struck by the conciseness and clearness of the directions given, whilst in the enumeration of reagents and stains the authors do not appear to have omitted any which can be fairly said to have stood the test of practice. It was wise to deal separately with the methods employed in the examination of the brain and spinal cord, since herein often lies much difficulty and need for special care in the processes employed. The inclusion of a chapter upon the Pathological Examination of the Eyeball, which is supplied by Mr. Treacher Collins, is a new feature in works of this class, and is certainly justified on similar grounds to those advanced for the separate treatment of the Central Nervous System. After this follow several chapters upon subjects which come into the sphere of clinical medicine, the Examination of the Sputum, Urine, Fæces, Vomit, Blood, Morbid Fluids and Discharges, and External Parasites. Amongst the matters which deserve special mention for the care and accuracy of the directions given and descriptions of the results of examination may be cited those dealing with the investigation of the sputum for micro-organisms, the microscopical examination of the urine, of vomit, and of blood. Nor should it be omitted to the authors' credit that they have paid considerable attention to that too much neglected topic, the examination of the fæces. Here is to be found

a description of the various intestinal parasites, the detection of whose ova may prove of such value in determining a doubtful diagnosis. The last two chapters of the book treat of the method of performing Post-mortem Examinations and of Mounting Museum Specimens. It is obvious, then, that the book embraces a wide field. It abounds in practical hints which will prove of value to the student, and there is everywhere an avoidance of discursive and unnecessary remarks. It is emphatically a manual for the laboratory, and should be valued as such. Nor ought we to omit a word of praise for the many excellent illustrations, most of which are the work of one of the authors, Dr. Wynter.

A Treatise on the Theory and Practice of Medicine. By JOHN SYER BRISTOWE, M.D. Lond., LL.D. Edin., F.R.S. Seventh Edition. London: Smith, Elder, and Co. 1890.

THE remarkable regularity with which new editions of this text-book make their appearance is striking testimony to its excellence and value. This, too, in spite of the numerous rivals for the favour of the student which have been put forth within the sixteen years since Bristowe's "Medicine" first appeared. Nor can it be said that the author himself has failed to keep his manual abreast of advancing knowledge, arduous as that task must prove. In the present edition he has made additions in various parts, and revisions in others, some of which he indicates in the preface; for instance, in the sections dealing with Paralytic Affections of the Larynx, Hæmic Murmurs, Pernicious Anæmia, Paroxysmal Hæmoglobinuria, the Physiology of the Nervous System, and in the chapter on the Legal Management of Lunatics. Two new topics have been introduced—viz., "Dry-mouth" and "Acromegaly." So long as there is shown such care and circumspection in the inclusion of all new matter that has stood the test of criticism, so long will this work retain the favour which it has always met. For it is a work that is built on a stable foundation, systematic, scientific, and practical, containing the matured experience of a physician who has every claim to be considered an authority, and composed in a style which attracts the practitioner as much as the student. No one can say that this book has obtained a success which was undeserved, and we trust that its author will long continue to supervise the production of fresh editions for the advantage of the coming generation of medical students.

OUR LIBRARY TABLE.

Intestinal Surgery. By N. SENN, M.D., Ph.D., Attending Surgeon, Milwaukee Hospital, and Professor of the Principles of Surgery and Surgical Pathology, Rush Medical College, Chicago. Chicago: W. T. Keener. 1889.—To a considerable extent this is a republication in book form of papers previously published elsewhere and noticed by us at the time of their appearance. It includes Dr. Senn's paper on Intestinal Surgery, read in the Surgical Section of the Ninth International Medical Congress, and his papers on Rectal Insufflation with Hydrogen Gas in the Diagnosis and Treatment of Lesions of the Alimentary Canal, with reports of three cases in which it has been employed. It is an advantage to have Dr. Senn's various writings on intestinal surgery collected together; and, to make the volume more complete, the first half of it is devoted to "a *résumé* of the best literature on the surgical treatment of intestinal obstruction." This has involved a certain amount of repetition; but, in spite of that, we believe that the volume before us will be gladly welcomed by all interested in this branch of surgery. The basis of Dr. Senn's teaching is the results of his experimental researches upon animals, and these have led him to advocate novel methods of dealing with some conditions. In certain particulars corrections may have to be made, but in the main we believe that his work is destined to stand, and to mark a distinct and very important era in intestinal surgery.

Handbuch der Ohrenheilkunde für Aerzte und Studirende. Von Dr. WILHELM KIECHNER. Dritte Auflage. Berlin: Verlag von Friedrich Wreden. 1890.—This is a very useful handbook of diseases of the ear, and can be safely recommended to those for whom it is written. We notice that exostosis of the auditory canal has received very little attention—a subject in which much interest is taken in England. Diseases of the tympanic cavity are very fully described, but the complications, such as cerebral abscess and thrombosis of the lateral sinus, are only incidentally mentioned. The causes of Eustachian obstruction from nasal and pharyngeal affections, including adenoid vegetations, are shortly but sufficiently treated. There is a good chapter on diseases of the labyrinth, but the more practical part of aural surgery has received the most attention. The illustrations (forty-one in number) are good, but half of them are of instruments.

Old Age. The results of information received respecting nearly nine hundred persons who had attained the age of eighty years, including seventy-four centenarians. By GEORGE MURRAY HUMPHRY, M.D., F.R.S. Cambridge: Macmillan and Bowes. 1889.—Old age, even extreme old age, is not properly to be regarded as a mere synonym for labour and sorrow. Critics of scripture have told us as much, and Professor Humphry, after weighing the evidence at his command, is decidedly of the same opinion. The facts upon which his conclusions are based are derived from the returns forwarded to him as a member of the Collective Investigation Committee. They comprise details of the life history and present condition of seventy-one centenarians, nineteen cases being quoted at some length, and of 824 persons between eighty and one hundred years of age. It cannot be said that in this instance the results of investigation have been wanting either in philosophical interest or practical instruction. On the contrary, there is much that is new in the material here gathered together, and much that is encouraging in the proofs which it affords of contentment and of mental and bodily activity even in the decline of life. A chapter on Post-mortem Examinations of Centenarians will not fail to interest the medical reader. In this connexion we may also draw attention to certain passages which trace the work of development still progressing, though slowly, in the aged, and those which describe the later changes in bone, brain, the blood-making organs, and indeed in the body generally. Sufferers from prostatic troubles will be glad to learn that this barrier to comfort and healthy life has repeatedly been safely crossed by many who have attained to old age. Arteritis and rib calcification, moreover, find but a subordinate place in the tissue changes of many very aged persons. There is in these also a remarkable recuperative power, which reveals itself no less in successful combats with grave illnesses than in the repair of serious injuries. The illnesses of the aged, indeed, are mainly those which come under the head of weakness. Their life is throughout a process of growth, work-waste, and repair, its prolongation depending mainly on three potent agencies—viz., an inherent strong vitality, a well-formed though not necessarily powerful physique, and the observance of temperance in all things, especially in eating and drinking. This careful treatise on old age will attract its readers on the ground of literary merit no less than on that of logical accuracy of description.

The Surgery of the Kidneys, being the Harveian Lectures, 1889. By J. KNOWSLEY THORNTON, M.C., Surgeon to the Samaritan Free Hospital, Consulting Surgeon to the Grosvenor Hospital for Women, and to the New Hospital

for Women. 19 Illustrations. London: Charles Griffin & Co. 1890.—These lectures consist of a brief review of the diseases and injuries of the kidneys for which surgical operations have been undertaken, and of the various surgical procedures that have been employed. Necessarily, the ground traversed is closely similar to that of other writers on renal surgery, but Mr. Thornton has mainly confined himself to recording the results of his own experience. As the time at his disposal for the delivery of these lectures was so short this was a very wise course to pursue, and it has made them of much more value than if they had been of the nature of a condensed compilation of the results of all workers in this field. As is well known, Mr. Thornton is a strong advocate for the abdominal method of nephrectomy when extirpation of the kidney is necessary. He makes out a very good case for this operation, although it is open to question whether the advantages of the two methods may not be usefully combined to form a third method. Into that question we will not enter here. There are many admirable cases recorded in these lectures, and Mr. Thornton's experiences of primary renal tuberculosis will be read with great interest.

The Shadow Test in the Diagnosis and Estimation of Ametropia. By W. M. BEAUMONT, Surgeon to the Bath Eye Infirmary. London: H. K. Lewis. 1890. Pp. 40.—In this little work, which is purely clinical, the author gives full details of the method of testing the vision by observing the behaviour of a shadow which appears when a beam of light is reflected by a plane or a concave mirror into the eye. The shadow is simply the darkness which surrounds the light area that may be thrown on a screen by a convex glass. The observation of the direction in which it moves is an easy and a very accurate method of determining the refraction of an eye, especially when the accommodation has been paralysed by atropine. The author prefers the concave mirror as involving less exercise on the part of the surgeon than the plane mirror, recommends the employment of atropine when accuracy is desired, and gives the results of a large number of observations. Coloured lines on pp. 33 and 34 would have rendered the diagrams more intelligible. The optical explanation of the test might have been given in an appendix, notwithstanding that the book is intended for students.

Analytical Records.

CAFFYN'S LIQUOR CARNIS.

(THE LIQUOR CARNIS COMPANY, LIMITED, HOLBORN VIADUCT.)

THIS is evidently a meat extract prepared in the cold and preserved by glycerine. It is extremely rich in nitrogen, and the ash contains phosphates in considerable quantity. So well are the soluble albuminoids of the meat preserved that the fluid when heated turns into a semi-solid jelly. It is a really valuable nutrient.

DR. CARL SEILER'S ANTISEPTIC PASTILLES.

(F. NEWBERY AND SONS, LONDON.)

These pastilles or tablets, dissolved in water, are intended for use in nasal catarrh, being applied as a spray or sniffed up the nostril by the patient. They are well adapted to the purpose, for our analysis shows that they contain the sodium salts of carbonic, boracic, benzoic, and salicylic acids, besides eucalyptol and similar compounds. The form in which they are supplied is very convenient.

RIZINE.

(THE RIZINE COMPANY, LIMITED, 41, GRACECHURCH-STREET.)

A valuable and convenient preparation of rice. Rice, after soaking in water, is exposed to the action of superheated steam. In this way it is not only gelatinised, but to some extent altered in composition, a portion of the starch becoming soluble, while the whole is in a condition for easy assimilation. We found 75 per cent. of starch and dextrine, of which 3 per cent. was soluble, and 9 per cent. of albuminoids. The remainder consists of cellulose, fat, and mineral matter. It is particularly suitable for children, and some convenient recipes are given for its use.

DERMATOS. A NEW NON-IRRITATING SOAP.

(F. JAMES & CO., 61, MARK-LANE.)

This is a perfectly neutral soap, yellow in colour, and completely soluble in water. The fatty acid separates from it as a clear oil on the addition of sulphuric acid. It is a well-made and useful article.

"AULD SCOTTIE" WHISKY.

(JAMES MENZIES, GLASGOW.)

This whisky contains 41·75 per cent. of absolute alcohol, equal to 86·28 per cent. of proof spirit. The residue, dried at 100° C., amounts to 0·25 per cent. It is a well-matured and excellent whisky.

CREOLIN CAPSULES.

(JEYES' SANITARY COMPOUNDS COMPANY, LIMITED, 43, CANNON-STREET.)

Well prepared flexible capsules, each of which contains five minims of creolin. We noticed this preparation on a previous occasion, and found no difficulty in identifying it in the samples now sent. It forms an alkaline emulsion with water from which acids separate the phenolic constituents. It is well adapted for use in diseases of the digestive, absorptive, and respiratory organs, and for other purposes.

IMPERIAL GRANUM.

(THE IMPERIAL GRANUM COMPANY, 23, ELM-STREET, NEWHAVEN, CONN.)

A good and well made powder of pleasant flavour. From our microscopic examination we infer that it consists of pure baked flour. It gives the dextrine reaction with iodine, and contains no trace of any impurity.

TOILET LANOLINE IN METAL TUBES.

(BURROUGHS, WELLCOME, & CO., SNOW-HILL BUILDINGS.)

Lanoline is too well known to render commendation necessary. The toilet preparation now supplied in collapsable tubes is white and delicately perfumed, and well adapted for its purpose.

DENAEYER'S LIQUID PEPTONE OF MEAT.

(THE DENAEYER'S PEPTONE COMPANY, LIMITED, 118, BISHOPSGATE-STREET WITHIN.)

M. Denaeyer's preparation may be described as a peptonised and concentrated meat essence. We find by analysis that it contains 23 per cent. of solid matter, of which 3 per cent. is ash and 3·5 per cent. nitrogenous bases and other matters soluble in alcohol. The remaining 16·5 per cent. consists of albumose, peptone, and a little gelatine, the latter being apparently the variety derived from chondrin. There is scarcely any albumen, but a trace of boracic acid, doubtless employed as a mild preservative. About one-third of the whole dry matter consists of true peptone, and another third of albumose, a variety of albumen, which is not coagulated by heat. The preparation is transparent and completely sterilised. It is quite free from the bitter taste which is apt to characterise peptonised foods, and in flavour resembles a concentrated beef essence. From its composition it is evident that Denaeyer's peptone is a liquid food of great value, for it consists mainly of the nitrogenous constituents of food in the condition fittest for assimilation. It is, in fact, to a great extent already digested.

DENAEYER'S PEPTONATE OF IRON (STERILISED).

(THE DENAEYER'S PEPTONES COMPANY, LIMITED, 118, BISHOPSGATE-STREET WITHIN.)

In this preparation Denaeyer's peptone of meat is combined with ferric hydrate, a neutral brownish-red solution being thereby produced. Both peptone and iron are easily found by analysis, and each is in a condition well suited for digestion and absorption. This is shown by the curious fact that weak acids cause a precipitate, which is again dissolved in an alkaline medium.

MURRAY'S FLUID MAGNESIA.

(SIR JAMES MURRAY & SON, DUBLIN.)

Each fluid ounce of this preparation contains seven grains and a half of carbonate of magnesium, equal to thirteen grains of bicarbonate. We found nothing else, except free carbonic acid and a trace of bicarbonate of sodium. The fluid is perfectly bright, and, being entirely free from impurity, is a mildly aperient medicine and a valuable antacid.

STOWER'S LIME-JUICE CORDIAL.

(A. RIDDLE & CO., 38, COMMERCIAL-STREET, E.)

A genuine preparation of lime-juice. We find no trace of any acid, except the citric acid proper to the fruit, and no metallic contamination. It is excellent in flavour, and perfectly bright.

GINGER BEER IN CASK.

(CLAYTON BROS., RUTLAND-STREET, PIMLICO.)

Old-fashioned ginger beer, when well made and drunk from the cask, is, after all, one of the best of modern temperance drinks. Not the least important thing about it is that everybody knows how it is made and of what it consists, so that it is a drink which may be indulged in with confidence. We find this ginger beer excellent in all respects. It is evidently prepared with great care from the very best formula. It possesses a sparkle in degree like that of bottled ale, and has an agreeable flavour characteristic of an infusion of fine ginger. We found a very slight trace of alcohol as an inevitable constituent, but scarcely to be detected from the specific gravity of the distilled liquor, although shown to be present by the well-known delicate iodoform test. Solid matter, dried at 100° C., chiefly sugar, 8·37 per cent.; metallic contamination, none. We can recommend the ginger beer either as a temperance or summer drink.

ASYLUMS BOARD HOSPITAL STATISTICS.

FOR the past four years a volume of reports by the Statistical Committee and the medical superintendents of the hospitals, asylums, and training ships of the Metropolitan Asylums Board has been issued, and the volume for 1889 is compiled in a manner which shows that this series is intended to be increasingly of interest and value to those concerned with the subjects with which it deals. A set of admirable maps is included in the last volume, indicating the localities from which the patients suffering from the several diseases which came under isolation were removed; and a table is also given showing the districts in which infectious diseases were notified between Oct. 30th, when the Notification Act came into operation, and Dec. 29th, 1889. In all, 6042 cases were notified, and the causes were as follows: Scarlet fever, 3301; diphtheria, 981; erysipelas, 808; enteric fever, 683; membranous croup, 142; undefined "fever," 54; puerperal fever, 43; typhus, 17; small-pox, 8; relapsing fever, 8; "cholera," by which choleraic diarrhœa must be intended, 1. It is much to be hoped that the maps will next year be utilised to show the distribution of the notified diseases over the metropolis, for this has far more interest to the public at large and to the medical profession than any mere localisation based on removal to a special group of hospitals. To this extent the Metropolitan Asylums Board would do well to act as a central authority, unless, indeed, they know that this will be an annual duty which the London County Council intend to undertake.

Since October, 1888, diphtheria has been received into the hospitals of the Asylums Board, and during 1889 the number of admissions was 772; and the map, showing whence the cases admitted were mostly derived during 1889, shows two main groups—one extending from Stepney through St. George's-in-the-East and Whitechapel into Bethnal-green, and the other being in the northern half of Kensington and of Paddington. But this affords, of course, no definite notion as to the localisation of the disease generally over the metropolis; it points rather to the areas where cases occurred which could not, with reasonable safety, be isolated in their own homes. On this subject of diphtheria the Committee report that, in view of their attention having been drawn by Mr. Sweeting to an increased prevalence of throat illness amongst scarlet fever cases since the reception of diphtheria patients into neighbouring hospitals, special care is being taken to learn whether any influence results from the aggregation together of persons suffering from diphtheria. Dr. Gayton gives a list bearing on this point, from which it will be seen that in the North-Western Hospital there were during the year 790 cases of scarlet fever and 144 of diphtheria; that of the scarlet fever patients eleven had diphtheria complications at periods varying from one week to eight weeks after admission; and that nine of the eleven died. Six of the staff also contracted the disease. So also in the Western Hospital Mr. Sweeting found that with 905 scarlet fever and 130 diphtheria admissions, no less than 27 of the former developed symptoms of diphtheritic throat illness, and that 18 of these died. Two of the staff had diphtheria and 5 suffered from tonsillitis. According to Dr. MacCombie's experience in the South-Eastern Hospital, where there were 1464 cases of scarlet fever and 89 of diphtheria patients, 7 scarlet fever patients exhibited the diphtheritic membrane in the fauces in the acute stage, and diphtheria or membranous laryngitis was a sequela in 19 convalescents. As to the diphtheria sequela, it appears to have occurred in all the scarlet-fever wards but two; there was no known causal relation between the cases, and no sanitary defects could be found to account for the occurrences. Dr. Bruce also records the occurrence of diphtheria in 15 cases, of which 4 died, and of "croup" in 5 cases, all ending fatally. As regards this amount of diphtheria amongst scarlet-fever patients, it would be interesting to know to what extent the percentage of such complications during 1889 differed from that which took place before the systematic isolation of diphtheria in these hospitals was undertaken. And it is very certain, to use the words which the Committee quote from their late medical officer Mr. Sweeting, that the whole question is "one calling for immediate skilled scientific inquiry."

ETHER *v.* CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—The subject of anæsthetics is of such importance to surgeons that every detail in its administration must be criticised and discussed as thoroughly as possible. In your last issue Mr. Nance in a very practical letter writes, among other things, of the use of Clover's inhaler. My own experience, after five years of surgical hospital residence, leads me to think unfavourably of that form of inhaler. In producing anæsthesia with it, the patient breathes and rebreathes his own exhaled air. Even if the air in the bag is constantly changed one frequently notices the marked cyanosis of the patient, denoting carbonic acid asphyxia as well as etherisation. This has been very forcibly impressed on me lately by a case of operation for intestinal obstruction, where the ether was given in a Clover's inhaler, with a free admixture of air. Towards the end of the operation there was marked cyanosis, and after partially recovering the patient died. It is but fair to state that the patient was sixty-three years of age, that the anæsthesia lasted rather over an hour, and that the pulse before the operation, although fair, was somewhat irregular. Allowing for all these factors, the opinion of the anæsthetist that the constructive fault of the inhaler contributed in no slight degree in causing death was concurred in by those present at the operation.

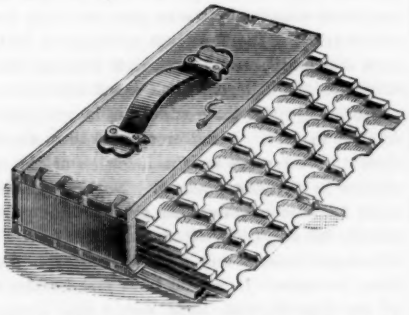
I am, Sirs, faithfully yours,

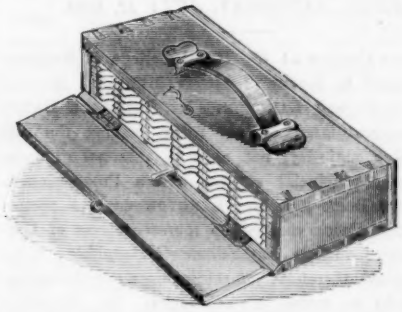
Bradford, July 7th, 1890. WM. HORROCKS, F.R.C.S.

New Inventions.

COMPACT MICROSCOPICAL CABINET.

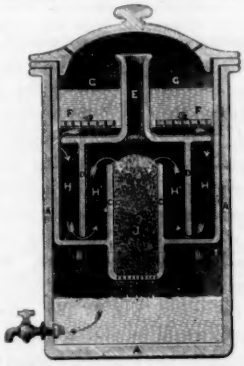
BY an ingenious device Mr. Ed. Moseley has contrived a cabinet for microscopical specimens which possesses the obvious advantage of displaying the whole of its contents at once. Instead of having to remove one tray after another, and thus to waste much time in the search after any particular specimen, the microscopist is enabled to bring each tray into view sufficiently to expose the labels on every slide. This appears to us to be a distinct improvement, which will doubtless be appreciated by those concerned. We are informed that the boxes can be obtained of the microscope dealers.





THE MORRIS PATENT CIRCULATING FILTER.

THIS very ingenious filter must be ranked as one of the most scientific in principle and construction yet before the public. The plan of it will be best understood by reference to the accompanying woodcut. Briefly it is this: the water is made to flow first over the shoulders of what may be described as a long-necked bottle, D, having no bottom. Thence it flows down the sides, up again on the inside, and finally over into a well, C, which nearly extends to the top of D, whilst the lower portion protrudes an inch or two below B. Not only is the water made to pass through a maximum quantity of filtering medium by this arrangement, but, what is just as important, efficient aeration is secured. As the water descends and ascends through the system by a kind of syphon action, it is brought into intimate contact with the air chiefly by means of the neck or air-shaft, E. Added to this, the spaces in and around the chamber, D, are charged with a column of fine filtering medium, so that the water trickles through slowly, but as soon as it reaches the inner chamber or elevated well, C, which is charged with coarse material, rapid percolation ensues through a medium which must obviously be highly charged with air. It is properly described as a "circulating" filter. The filter we have had submitted to us contained for medium Doulton's patent manganous carbon. Other filtering medium may be used if preferred. There is an entire absence of inconvenient and objectionable fittings like corks, plugs, and screws. We subjected the filter to a rather severe qualitative test. A solution representing highly polluted water was prepared by adding 3 oz. of urine to 30 oz. of ordinary tap water; a portion of this was reserved for comparison; the rest was put through the filter. The following results were obtained:—



TEST.	UNFILTERED.	FILTERED.
Appearance	Dull yellowish.	Bright.
Smell when warmed with a little carbonate of soda	Disagreeable, ammoniacal.	Very slight earthy.
Acidified permanganate of potassium ..	Rapid decolouration.	No decolouration.
Nessler's reagent ..	Brown precipitate.	Slight yellow colour.
Evaporated to dryness and heated ..	Charring, and bad smell.	Slight smell, no charring.

These results, as will be seen at a glance, speak for themselves—they are eminently satisfactory. The inventor and patentee of this filter is Mr. Morris, of the Tube Ammunition and Safety Range Company, Limited, 11, Haymarket, S.W.

HICKS'S NEW PATENT "DUPLEX INSTANTER CLINICAL" THERMOMETER.

THE advantages claimed for this instrument, in which the bulb is divided into two portions, are that it is extremely sensitive, strong, and cleanly. Experience can alone prove how far it merits to be considered an improvement on the ordinary pattern. The comparative smallness and flatness of the bulb, whilst of advantage for taking the temperature in the mouth, is a slight drawback to its use in the axilla. It is a bold thing to assert that it is stronger than other thermometers; all, we fear, are equally liable to break in clumsy hands.

SECTION.

THE LANCET.

LONDON: SATURDAY, JULY 12, 1890.

THE recent election at the Royal College of Surgeons has terminated in favour of Messrs. MITCHELL BANKS, MARCUS BECK, and LANGTON. Mr. MITCHELL BANKS is to be congratulated on his name heading the poll by a decisive majority, not only on personal grounds, but also as a provincial surgeon and a Progressionist. Mr. MARCUS BECK and Mr. LANGTON succeed respectively to the places vacated by representatives of University College and St. Bartholomew's Hospitals; these two institutions, therefore, yet retain seven out of twenty-four seats—by no means a small share. Mr. LANGTON now holds office as Councillor and Examiner, a plurality which eighteen years ago the Council itself regarded with a certain amount of disfavour.

Five hundred and twenty-seven Fellows took part in the election; of these, 372 voted by means of voting papers and 155 in person. Only one voting paper was invalid, by reason of the Fellow not signing his name on the envelope. Twelve voting papers were received too late. We mark with satisfaction that the number of Fellows voting is not diminished, but increased since last year. This sign of vitality is hopeful, because unconcern and indifference to collegiate policy have hitherto appeared so marked. The conditions of the election have undoubtedly been improved by the use of voting papers, and the formalities hedging the application of this electoral convenience are still unquestionably irksome and irritating. Fellows would prefer that these voting papers should be sent to them as a matter of course from the College, instead of their having to apply for them; nor is it by any means necessary that a Fellow of the College using an ordinary voting paper should have to call in a witness to attest his signature.

Accepting the recent verdict of the electorate with all loyalty, we must regretfully confess that any early step in reform seems still improbable so far as the Council is responsible for the movement. At the last election three members of Council were returned, of whom *not one* could rank as a Progressionist; they were all absolutely opponents of any proposed reform. At the present election one really progressive candidate has been returned first on the list, against two of an opposite leaning. Reconstitution of the College under such circumstances might appear to be hopeless, and reforms might be relegated to the dim future were it not for the greater energy and push that the advanced section of the Fellows will assuredly manifest in contending against existing grievances. Every dictionary of the English language gives a definition of the words *College*, *Fellowship*, *Membership*, and *Licentiateship*. Have these terms ever received at Lincoln's-inn-fields the true practical significance which belongs to them? Have not the definitions of these terms by the Council been compressed into the smallest possible compass of interpretation, and in the case of Membership become wholly inapplicable? Some changes, reduced in the process of revision to the utmost tenuity, have, it is true, been ultimately adopted by the Council, but no initiative action of any importance has been taken by that body.

The greatest happiness of the *smallest* number is not a political creed of the present day, nor can a continued respect be accorded by the corporation of any College to its constitution, if the President continues to be but a chairman of Council, and the Council imagine themselves to constitute the College. The Council missed its opportunity of fairly adjusting these grievances by not remodelling the Charter in 1888. It flattered itself that controversy and dissent would cease on the inclusion of the uncontested clauses in the new Charter. Nothing could have been more fallacious; indeed, the controversial points were implicitly and explicitly left over by the Lord President for future settlement, and that settlement must, sooner or later, be made. It cannot have escaped the observation of the Council that their words and deeds are being narrowly and critically watched by the Fellows and the members of the College, that abuses do exist and anomalies are perpetuated, that an increasing interest is being taken by the body corporate in collegiate politics, and that further publicity is thereby inevitable. This very publicity may be trusted to arouse enlightened interest among the profession, so that before long the method of government of the Royal College of Surgeons of England may cease to be quoted as an illustration of the least liberal and most archaic of all the collegiate systems.

WHEN his student's career is completed, his diplomas obtained, and his name duly inscribed on the Medical Register, various courses are open to the young medical practitioner. Many wisely avail themselves of the opportunities afforded them in most metropolitan and many provincial medical schools of obtaining various appointments in the hospital which has been their *alma mater*. The offices of house physician and house surgeon are, for a period at least, of great value, enabling their holder to acquire increased clinical experience, accuracy, and rapidity of diagnosis, as well as self-confidence in emergencies. Of great value, too, is the office of resident obstetrician, and it would be well indeed if all holders of a diploma had attended one hundred, instead of only twenty or even fewer, cases of labour. Besides these, there are many other resident hospital appointments to which are attached salaries more or less liberal, in addition to board and lodging. The fortunate holder of one of these posts may, *cæteris paribus*, hold it for several years, and if he be of a frugal habit may save a sufficient sum to form a nest-egg with which to commence private practice. But it is impossible to ignore the fact that these appointments have with all their advantages some drawbacks. One is a tendency the holder may acquire of getting into a cavalier way of treating patients, concentrating his attention upon the cases more interesting to him, and regarding indifferently those very cases which he is more likely to meet with in after life. This is a very bad preparation for the private practice to which the larger proportion of newly qualified medical practitioners must eventually turn their attention, since on careful study and treatment of the mor common ailments must mainly

depend their future success or failure. Other drawbacks to these resident appointments and additional excellent reasons for not holding them too long might be given, but it will be more profitable to pass on to the consideration of those appointments which are in every way most valuable as preparing their holders for future private practice, while at the same time affording them a temporary home and more or less reasonable remuneration. The qualified assistant to a general practitioner, especially one in a country district, may continue with much profit his student's career by carefully studying those cases with which he has not hitherto become familiar. These will comprise cases of paralysis and various other chronic illnesses from their onset to their termination, obstetric cases, the exanthemata and other diseases in children, and cases of senile decay where disease is absent or very slight. Young surgeons will do well to remember that, though great credit undoubtedly attaches to skill in cases of emergency—such as the prompt arrest of profuse hæmorrhage, the speedy relief of a distended bladder, or the rapid and painless removal of a foreign body,—much greater credit attaches to the patient and kind treatment throughout of a chronic ailment, lasting it may be for months; to attendance on a woman during her confinement, and on an octogenarian, to whom the "doctor's visits" are the pleasantest moments in a weary existence. It requires much time and constant practice to acquire the patience, with perfect command of temper, necessary to endure the irksomeness caused by these monotonous duties, and the sooner young practitioners begin to learn them the better.

Assistantships are not so popular among the younger members of the profession as could be wished, this being due to various causes. Principals do not sufficiently recognise that in these days it is unreasonable to expect a qualified assistant to dispense medicines; where one is required a dispenser should also be kept. The qualified assistant of to-day has often spent years in study of a much more advanced kind than that of the generation to which his principal probably belongs, and a little mutual concession may make the former of great value to his employer quite beyond the assistance afforded to him in his practice by visiting and attending midwifery. He may keep him in touch with modern views and recent researches, which a busy practitioner could hardly acquire without such assistance. The principal of a town or country practice may by generous treatment obtain the services of men quite as efficient as those whom the managers of provincial hospitals and infirmaries secure for their resident appointments. Such men must have passed through their curriculum with credit; they would make very valuable assistants, but they have a right to expect better treatment from their principals than it must be confessed they even yet sometimes receive. The term "assistant" is an unfortunate one, and should be replaced by one more descriptive of the fully qualified man and less suggestive of inferiority. A young professional brother who can visit patients, attend obstetric cases, act in the absence of the principal at inquests, in courts of law, and on other occasions, is a valuable friend who ought to be treated with courtesy as well as generosity.

On the other hand, even qualified assistants have not always treated principals with the respect due to their years and experience. Conduct, too, which might be perfectly legitimate in the house surgeon's room may be very much out of place in a family of which ladies form a part; and the refining influence of ladies' society is a circumstance which gives additional value to what are now called assistancies or assistantships. A learned judge once expressed a regret that the learned counsel present had not left their "*nisi prius* manners" behind them. Equally young physicians and surgeons must bear in mind that the private and even club and parish patients of their principal stand upon a totally different footing from hospital patients, and cannot be always dealt with according to similar rules of procedure. The principal is remunerated for his services, the assistant for his, and in these days even pauper patients must not be treated with rudeness or incivility. We trust that in the foregoing remarks we shall not be misunderstood. We are far from suggesting that all principals are ungenerous or wanting in courtesy. Nor would we have it supposed that we believe the younger members of our profession to be all insubordinate or wanting in respect to their superiors, especially of the opposite sex. We have merely indicated how certain appointments might be made thoroughly popular with those for whom they are intended, and how the future private practitioner may efficiently prepare himself for the great battle of life wherever his lot may be cast.

As we have repeatedly pointed out during the past six years in which the agitation for conferring degrees on London medical students on similar terms to those which are deemed sufficient in the other centres of medical education in Great Britain has been making progress, the position of the University of London and its peculiar relation to the education not only of medical students, but of students in arts, laws, and science in the metropolis as well as throughout our vast empire, had to be considered as the key of the situation. Side by side with the admittedly just demands of London medical students, the question of a local University with a teaching as well as a merely examining function has come to the front, and, contrary to what might have generally been anticipated, the latter question seems much more likely now to be approaching a satisfactory settlement than the former. Instead of tacitly allowing the necessity of two Universities in London—one concerned both with teaching and examining and the other with examining only—the Senate of the existing University has put forward a scheme which, except in a few minor details, has been accepted, after many conferences and mutual concessions, by University and King's Colleges, and which will place under one body "the promotion of regular and liberal education throughout Her Majesty's dominions, and especially in the metropolis and its neighbourhood." This is so far satisfactory, and the Royal Commissioners appointed in 1888 are to be congratulated on the acceptance of a compromise suggested in the main by their report. Of course, any new Charter embodying the scheme must be laid before Convocation, on whom will now rest the responsibility of acceptance or non acceptance. The new resolu-

tions affecting the Teaching Colleges concern only pass examinations for the degrees of B.A. and B.Sc., and the medical degrees have been specially reserved by the Senate of the University of London until they have had further conferences with the representatives of the Royal Colleges and of the Medical Schools.

Throughout this long agitation we have persistently contended that London medical students should have that fair chance of a degree from which they are now debarred, and a concise history of the main features of the movement is well worthy of study at the present juncture, for we have arrived at a critical moment, and on the decisions of our medical corporations depends the result. The demand may be within a measurable length of solution, otherwise the agitation will be indefinitely prolonged, to the disadvantage of London as a centre of clinical teaching, and with manifest injustice to the London medical student, to whose fees not only London medical schools, but the great professional corporations—the Royal Colleges themselves—are mainly indebted for their dignity and even for their existence on the standing they now possess. In 1884, partly from outside pressure, and partly from the advocacy of two distinguished Fellows now deceased, Drs. WILSON FOX and MOXON, the Royal College of Physicians was stirred to move in the matter, and the College declared itself bound to protect the legitimate rights and due privileges of the London medical student. The authorities of the College of Surgeons were then approached, and a joint committee of the two Colleges was appointed, which agreed to a report in July, 1885, to the effect that "it was desirable and practicable that persons examined by the Colleges acting conjointly, should in virtue of that examination, have a degree in Medicine and Surgery conferred upon them." In April, 1886, the Council of the Royal College of Physicians drew up an outline scheme with a special examination in arts, doubtless regarding the present preliminary examination as an unsatisfactory minimum. This was not accepted, but was referred, with a report from a committee of the Council of the Royal College of Surgeons, to a Committee of Delegates of the two Colleges, which in 1886 and 1887 held many meetings to consider the question of the advisability and practicability of granting degrees in Medicine and Surgery to persons who had passed the Conjoint Examinations of the two Colleges. In spite of every warning as to the narrowness of the basis on which they were seeking a revolution in degrees, by making them merely titles from professional corporations, instead of seeing that they must remain University distinctions, and by declining the overtures for combination with the proposed Teaching University, so as to form the medical side of a new University for London, the Committee of Delegates, far from unanimously (especially when there was no security in the resolution that a proper preliminary education in arts and science would be required), recommended that a petition and Charter should be presented to the Crown through the Privy Council, and the Colleges then deputed the committee to draft the proposed Charter. On the formation of the Royal Commission in 1888, this petition and draft Charter, with those of the Teaching Colleges for a local (the suggested Albert) University, were duly considered by the Commissioners. Thirty-eight documents were put in, of which a large majority, including petitions from every University in Great Britain, except that of London, protested against such a new departure as the bestowal of the right of granting degrees to professional corporations. The Commissioners reported, after hearing the evidence, "that a great demand exists for medical degrees attainable in London more easily than at present, and that it may be desirable to provide for that want in some proper manner. But a careful consideration of the whole evidence has led us unanimously to the conclusion that the establishment of such a body as the Senate of Physicians and Surgeons proposed by the Royal Colleges would not be the best means by which that end could be attained; and that a remedy may be found for any practical grievance under which the medical students of London, the Licentiates or Members of the Royal Colleges, or the Licentiates of the Society of Apothecaries, may now labour in respect of access to medical degrees, without either conferring the power of giving such degrees upon Colleges which have no academical character, or creating a new examining and degree-giving University in a single faculty; neither of which innovations appears to us in itself desirable" (par. 4). No decision more condemnatory of the proposals of the Colleges could have been given. The Commissioners also offered suggestions as to the mode by which the grievance, which they admit is "injurious not to the men only, but to the public," should be remedied. They recommended that in the medical degrees of the University of London "the standard of attainment appropriate for honours ought no longer to be required by the University for an ordinary or "pass" degree, and that the Presidents of the Royal Medical Colleges, or two nominees, were to be placed on the Senate, and always to be members of the Committee for Medicine, but they mention no other powers which should be given to the Royal Colleges. In face of numerous and vigorous protests from present graduates in medicine, the Senate of the University has drawn up a scheme to meet these suggestions of the Royal Commissioners, and this has been submitted to the Committee of Delegates of the two Colleges for report. In many respects this Committee of Delegates varies from that of 1886 and 1887, and we regret to hear rumours that its report, if passed by the Royal Colleges, demands such concessions from the University as that body cannot possibly be expected to grant, so that the medical student will then be left with his grievances unredressed. The Senate offers[1] a joint examining board to conduct the strictly professional examinations for the Pass M.B. degree, and seats on the Senate and Standing Committee in Medicine to the Presidents, and the position of Constituent Colleges in the Faculty of Medicine to the non-collegiate medical schools. But it is understood that the Committee of Delegates recommend their respective Colleges to ask for much more:—greater control over the management of the examinations; increased representation on the Senate; and the payment by every pass graduate of the reconstituted University of a fee to the corporations heavier than that now received by the Senate for the corresponding examinations, or than that payable for his degree in Honours if he chooses to go to the University directly. We can hardly believe that the

[1] See "Further Revised Scheme" in THE LANCET of June 21st, p. 1394.

great professional corporations of London can allow these considerations to guide them when they are asked to assist in remedying an injustice, which they have already declared it is "desirable and practicable" to remove. If it be true, the agitation must go on even if the Royal Colleges have to be passed by, and the question will have to be asked whether their coöperation is absolutely necessary? The Royal College of Physicians now practically say that this report is not an ultimatum, but may be modified, and therefore it can only be considered as a basis for negotiation with the University. The Medical Schools—University and King's Colleges excepted—are to be received by the Senate of the University on Tuesday next, and should clearly lay their own case before that body, as they are well able and obviously entitled to do.

LUCRETIUS, in a noble passage of his poem on the Universe, imagines for us the rude attempts of prehistoric man to repair the injuries received in his conflicts with beasts of prey; while according to CELSUS, races the least civilised have never been without their handy remedies—their "prompta in auxilium"—for wounds and for general ailments. The healing art, indeed, is coeval and coextensive with humanity, and of its two main divisions—surgery and medicine—surgery was the earlier in time and the more effective for cure.

It is to the Nile Valley, however, that we must go for the first indications of the healing art in system and in scientific practice, and a paper by the accomplished Orientalist Professor SAYCE, in *The Newbery House Magazine*, opportunely summarises for us the findings of recent research on the old Egyptian medicine. The Papyrus-Ebers, so called from its German discoverer, represents one of the six Hermetic books on medicine noticed by S. CLEMENT of Alexandria—the book which he entitles "Of Drugs," *περὶ φαρμάκων*. This book dates from about two centuries before the Israelitish Exodus (the seventeenth century B.C.), and describes in elaborate detail the diseases known at the time, the remedies discovered for them, and the treatment they required. It opens with the words: "Here begins the book of the preparation of the remedies for all the parts of a patient's body. I have issued forth from On"—the chief Egyptian medical school, whose professors of the theory and practice of medicine were also priests of the sun-god. Next comes a prayer to ISIS, invoking a benediction on the means employed by the practitioner, the words of which prayer are ordered to be pronounced every time a medicine is taken. This formula, indeed, is a lingering relic of the superstition that survived in that age of culture and knowledge when disease had already been classified and its treatment based on some perception of natural law. If proof were wanted of the vast superiority of the old Egyptian to that of contemporary civilisations, a glance at the Babylonian medicine would suffice, in which disease was still regarded as a sign of demoniac possession, to be removed by exorcism or charmed away by incantation.

Greater credit belongs to Egypt, however, for having prepared and quickened the soil for the Greek medicine, as, but for her, the advent of a HIPPOCRATES might have been postponed for centuries. The medical art, in Kos, Knidos, and other centres of Greek civilisation had shaken itself free of sacerdotal intervention, and if the temples of Asklepios were resorted to for treatment and cure it was only by the superstitious lower class who were proof against the satire of ARISTOPHANES. The keynote of rational medicine as it is now studied and practised was struck by HIPPOCRATES when he denied to disease a supernatural origin: "From GOD comes one disease as well as another; but, so far as our art is concerned, all of them occur only in conformity with nature." Again: "The physician of disease is nature"—the practitioner's function being to aid her in the right, to restrain her in the wrong, direction. Yet again: "To ascertain the past of the patient, to examine his present, to forecast his future"—such should be the aim of the duly qualified practitioner. These conceptions of the healing art and its method have made HIPPOCRATES the "Father of Medicine," and the ablest practitioners in all subsequent time have been proud to acknowledge the paternity.

Professor SAYCE'S article reminds us of what England has left undone, and what she has yet to do in the field of medical history. It is not creditable to a country which has laid the healing art under such deep obligations, and which annually sends forth the flower of her youth to its study or its practice, that her only history of medicine which learned Europe deigns to notice is that written by Dr. JOHN FREIND early in the last century. Not till our universities adopt the custom of their Continental sisters, and add a chair of the history of medicine to their teaching strength, will they enjoy the adequate conditions under which they may do posthumous justice to their great practitioners and consultants, instead of leaving the task to the alien and sometimes uncongenial hands of a HAESER, a DAREMBERG, or a PUCCINOTTI.

Annotations.

"Ne quid nimis."

THE PREVENTION OF LEPROSY IN THE UNITED STATES.

THE action of the United States in returning to this country an intending immigrant who was found to be suffering from leprosy gives interest to a recent bulletin of the State Board of Health of Tennessee, which contains an account of the conclusions come to by a committee appointed to report on the general subject of leprosy, and on the prevention of its introduction into America. In the absence of unanimity on the committee, a majority and a minority report were issued. The majority hold that leprosy is contagious, and in support of this they recall the increase in the disease which has taken place in countries where, owing to the dictum of the Royal College of Physicians in London, precautions in the way of segregation have been abandoned. The report also regards the condition of Cuba as especially threatening to America, since lepers were to be found everywhere in the island, and since many were doubtless occupied in such businesses as the rolling of cigars. And it is held that the danger is the greater because so few American physicians had had sufficient experience to enable them to diagnose the disease in its early stages. And further, the reporters are evidently convinced that it is necessary to initiate the policy of absolute and implacable segregation as regards lepers already domiciled in the country, of the

forbidding of all leper marriages, and the prohibition of all uninfected persons occupying infected houses. It is added that there are already enough lepers in Wisconsin and in Minnesota to warrant the establishment of a leper hospital in that section of the country. A minority report was prepared by Dr. Hoegh, who is a native of Sweden, and has studied the disease in his parent country. This report holds that the danger of contagion has been much exaggerated in the majority report, and that it is quite possible to exterminate the disease in the United States without having recourse to measures of such unnecessary severity as had been proposed. The Government of Norway, it is stated, allowed patients to live in their own houses when this was approved by local officers who were satisfied that the sufferers were to have the use of separate rooms, clothing, and utensils. This practice, it is stated, is extensively in operation in that country, where the diminution of leprosy is alleged to be due as much to improvement in the habits of life as to strict segregation. But whilst it was felt that the present immigration restrictions of the United States sufficed, it is recommended that lepers already in America should not be allowed to go into public places, travel, or share a room with others, and that their families should be inspected from time to time, to watch for any evidences of the disease spreading. Under the National Quarantine Act of 1878, which is entitled an "Act to prevent the Introduction of Contagious or Infectious Diseases," the attention of the medical officers of the Marine Hospital Service, of the collectors of customs, and others, has been directed by the Office of the Supervising Surgeon-General to the increase of leprosy in certain foreign countries and to the immigration of leprous persons into the States, and they are informed that, by direction of the Secretary of the Treasury, a regulation has been framed to the effect that no vessel shall be admitted to entry until a certificate is produced from the health, or quarantine officer that no person affected with leprosy is on board, or, in case a leper has been on board, that he or she, with any baggage, has been removed and detained in the quarantine station. Medical officers in command of the United States quarantines are also instructed to detain all persons suffering from leprosy found on board any vessel, except in so far as they may permit the departure in any outgoing vessel of any person detained, provided such vessel shall be bound to the foreign country from which the leper shall have last sailed. It is quite evident from these reports, and from the regulations that have been enacted, that it has been deemed necessary to take action on the supposition that an infectious quality does, under certain circumstances, attach to the disease of leprosy. But, on the other hand, it is equally clear that there is a strong feeling on the part of a large number of the leading medical practitioners that the degree of contagiousness is limited, and that the prevention of the disease does not require the entire segregation of all lepers, irrespectively of the condition of their homes, surroundings, and other circumstances. The uncertainty which still exists on this subject is general throughout the civilised world, and everyone will rejoice if the investigations which are now to be commenced by the aid of the National Leprosy Fund, which has been inaugurated under the auspices of the Prince of Wales, lead to a solution of the difficulty, and to a right understanding of the natural history of this widely diffused and much-dreaded disease.

RHINOSCLEROMA.

AN excellent summary of this rare disease is given by Wolkowitsch in the *Centralblatt für Chirurgie*, No. 23, which will well repay perusal. This complaint was first described by Hebra in 1870. It is characterised by a hard swelling appearing in the nose and its neighbourhood, by a very chronic course, and resistance to remedies. Cases have been recorded from all parts of Europe, but they have chiefly occurred in the eastern parts of Austria and the south-western provinces of Russia; a few cases have also been observed in Central America. Wolkowitsch has collected seventy-six cases, in addition to eleven recorded by himself. The disease commences very insidiously. The most common site of origin is the deeper parts of the nose and occasionally the pharynx and larynx; in one case it started from the hard palate. Wherever it may have originated the middle of the nose very seldom escapes, and the disease generally spreads to the following parts: the mucous membrane and subjacent tissues of the nares, the upper and lower lips, the tissues around the upper jaw, and occasionally even to the lacrymal tract and Eustachian tube. The progress is continuous and symmetrical. Of 85 cases the mucous membrane of the nares was attacked in 81, the cutaneous coverings of the nose in 74, the pharynx in 57, the larynx in 19, the trachea in 5, the upper lip in 46, the upper jaw in 16, the hard palate in 17, the tongue in 4, the under lip in 2, and the lacrymal tract in 5 cases; the ear was affected in 1 case only. The local changes consisted in the formation of small nodules, or sometimes plates, as hard as cartilage, some being diffuse and others sharply circumscribed. These usually had their origin in the deeper layers of the skin and mucous membrane. There was a considerable amount of brawny swelling around the nodules. A retrograde metamorphosis occurred in some cases, leaving hard and contracted fibrous tissue, so producing more or less distortion of the features and constriction of the upper respiratory passages. The nodules never broke down unless some complication occurred, or as the result of irrational antisyphilitic treatment. The subjective symptoms were few. At the first there was usually an ordinary nasal catarrh; there was loss of smell, but the patient suffered very little pain throughout. Occasionally, however, fissures formed in the lips, producing considerable difficulty in speaking and eating. If the larynx or pharynx were much affected dyspnœa was marked, often producing very serious symptoms. The disease was exceedingly chronic, lasting fifteen to twenty, or even twenty-six years. The diagnosis from syphilis was often difficult. The only treatment of any avail was excision. A microscopical examination of the tissues was made in ten cases. The most marked histological features were a round-celled infiltration and a large amount of fibrous tissue, together with numerous larger cells, and the formation of small round spaces—"vacuoles,"—due to hyaline degeneration of the large cells. The hair-follicles and sweat-glands were atrophied. Micro-organisms were always found. They stained by Gram's method, and morphologically could not be distinguished from Friedländer's pneumococcus. They occurred in large numbers, and from their constant occurrence they seemed to bear an etiological relation to the disease, although inoculation experiments were unsuccessful.

INTERNATIONAL MEDICAL CONGRESS, BERLIN, 1890.

SPECIAL arrangements are being made for members from the Northern, Eastern, or Midland Counties to travel to Berlin *viâ* Harwich and Rotterdam, by Mr. Gooday of the Great Eastern Railway Company. The party can leave on July 31st or Aug. 1st, whichever day may prove most suitable. Through carriages will be arranged for on the English and German railways. If the number reaches thirty or over, and members either obtain their tickets or give notice of travelling by the special train a week beforehand, the fares will be lowered about £2 2s. on the first-class and £1 12s. on the second-class tickets, reducing

the through fares to £4 12s. and £2 16s. respectively. Members wishing to travel by this route, should communicate with Mr. Gooday, manager of the Great Eastern Railway, and also with either Mr. Charles Birch of 2, Brunswick-place, Leeds, or Mr. Geo. Cunningham of 2, King's-parade, Cambridge, who are organising the party. Travellers from London *viâ* Queenborough and Flushing will obtain similar advantages. Messrs. Cook are willing to send a courier to take charge of any party numbering thirty or more, and arrangements will be made to ensure special carriage accommodation and berths. Notice of intention to travel by this route must be given to Messrs. Cook one week before the date of leaving. By this route members may leave as late as Saturday, August 2nd. Messrs. Cook are sending a clerk to attend the British Medical meeting at Birmingham to give information on the subject. If 300 members could be ensured a special train and steamer would be run.

THE "POLICLINICO" AT ROME.

BRITISH medicine has more than its share of interest in this great work, which, when completed, will be an event of European importance. Not only will the grand façade of its surgical department present as its chief ornament the likeness in bas-relief of the English surgeon who discovered the antiseptic treatment, but the whole building, or rather group of buildings, will bear the impress in almost every detail of British example and British influence. As already shown, the "Policlinico" is due to the inspiration of the leading physician and consultant of Italy, the statesman, scholar, and man of letters, Dr. Guido Baccelli. Thanks to his prudence, energy, and weight in official circles it is steadily advancing to completion, when the monetary crisis of Rome is causing the suspension of other architectural undertakings only less important. The site on which it stands, the south-east of the city, between the Porta S. Lorenzo and the Porta Pia, skirts on its urban side the Prætorian Camp, whence it stretches out towards the Sabine hills over a space of 160,000 square metres, circumscribed by ample approaches thirty metres wide. The architect bears an honoured name in his profession, Giulio Podesti, and has more than fulfilled the expectations he inspired. Under him, again, works Signor Cerebelli as builder, with a "technical office" at his command; while the supreme direction is entrusted to a "commissione governativa," composed of the distinguished surgeon Durante and the equally distinguished physician Bastianelli, with Dr. Baccelli at their head. As one enters by the main approach to the "Policlinico" he is confronted by the "palazzo dell' amministrazione," from which on the ground floor and first floor branch off four great galleries, communicating with all the buildings of which the institution is composed. These consist of three compartments. To the right of the "palazzo dell' amministrazione" is the "comparto medico;" to the left, the "comparto chirurgico"; and at the south-east corner the compartment for infectious and contagious maladies, the laundry, and the "anatomico-pathological institute," with the "camera mortuaria" attached. At the back of the "palazzo dell' amministrazione" are the bath-rooms, the kitchen, and the chapel. Every compartment is composed of several cliniques, which lie along the principal frontage. To the right, the medical, divided into propædentic, neuro-pathological, medical properly so-called, syphilitic, and pædiatric, to which is annexed a hospital for patients. This hospital, divided into twenty-two pavilions, accommodates easily 295 patients. The "comparto chirurgico" to the left is distributed into the following cliniques: the propædentic, the aural (otoiatric), the surgical proper, and the ophthalmic; while the "ostetrica-ginecologica" occupies the other corner corresponding to that dedicated to infectious and contagious diseases. This compartment also has a hospital attached accommodating 210 beds for teaching purposes. These cliniques accommodate 141 of both sexes; the "comparto chirurgico," as a whole, having 351 beds, and the obstetric institution 60; so that the entire policlinique provides for 878 patients. The space unoccupied by the buildings is divided by footpaths intersecting parterres, gardens, and fountains. Special operations of transport—as of patients, linen, cadavera—are effected through the immense galleries which place the several buildings in communication. Finally, the "Policlinico" will be provided with every appliance known to the best-appointed hospitals and schools of Great Britain and America, for ventilation, heating, and in the matter of lifts and conveyances for the patients. Dr. Baccelli, with an economic skill not always displayed in such vast undertakings, has succeeded in keeping the outlay, at least so far, within the estimates; which serves to explain the fact that the "Policlinico," which he fondly designates "il mio pomo d'Adamo" (the apple of his eye), is within measurable distance of being *un fait accompli* when other architectural enterprises in Rome are in suspension, if not deferred to the Greek Calends for want of funds.

THE MIDWIVES BILL.

THERE is a certain chance for a Bill like the Midwives Bill passing through Parliament in the very fact that Parliamentary business of the more regular kind is in a somewhat demoralised condition. We are glad to say that our representations as regards the absurd part of Clause 5, giving power to midwives to recover for operations, have been fully entertained, and that this part of the Bill will be stoutly opposed by the authors of the measure if it reaches the Committee stage. Indeed, the Bill should not be allowed to pass unless the words objected to are removed. Care should be given, too, to define more stringently the status of midwives already practising, which will entitle them to be registered.

THE MODE OF ACTION OF PATHOGENIC BACTERIA.

ALTHOUGH the "germ theory of disease" is now generally accepted, and the micro-organisms themselves have been demonstrated and cultivated, little is yet known about their mode of producing diseases in their host. Various theories have been advanced, but no definite result had been obtained until quite recently. Roux and Yersin were the first to make any discoveries; they experimented with the diphtheritic bacillus of Löffler. They found that in cultures of this organism a "poison" existed, soluble in water, which possessed the same properties, when injected into animals, as the pure culture itself, producing acute nephritis, fatty degeneration of the liver, inflammatory œdema at the site of inoculation, and paralysis of the hinder extremities. The poison acted slowly, the local symptoms only appearing after several days. They obtained the poison by filtration of the broth cultures through a Chamberland (porcelain) filter and evaporating the filtrate in a vacuum. They also found that this poison is far more abundant in old cultures than in recent ones; that it is precipitated by alcohol, and that it is destroyed at 100°C., and its virulence weakened at a temperature of 58°C. Brieger and C. Frankel have confirmed these experiments and extended them in many ways. They likewise selected Löffler's bacillus for investigation. For the exhibition of the specific poison they cultivated it on ordinary peptone broth, or in broth which had been mixed with from 4 to 5 per cent. of glycerine and 10 per cent. of serum obtained from ox blood. The culture was filtered through a Chamberland filter, the filtrate evaporated to one-third of

its original bulk in a vacuum at a temperature of 30°C., and was then treated with ten times the quantity of absolute alcohol with a few drops of concentrated acetic acid. The mixture was allowed to stand for twelve hours surrounded by ice and then filtered, the precipitate being dissolved in water and again filtered. The filtrate was then evaporated to dryness in a vacuum, and a light amorphous mass, snow white in colour, remained. This substance gave the reaction of a proteid, allied to serum albumen. It was insoluble in alcohol, and precipitated by strong mineral acids, ferrocyanide of potassium, and acetic acid. It also gave the biuret reaction, the red colouration with Millon's reagent, the xantho-proteic reaction, and turned the polarised ray to the left. This substance was extremely poisonous, and when injected into animals produced the same symptoms as the culture. Brieger and Frankel found a second proteid in the filtrate, allied to the first in its chemical composition, but not poisonous. The above observations are a great advance in our knowledge of bacteriology, but even more valuable work has been done by Dr. Sidney Martin for the Local Government Board, the results of which he read before the Royal Society on May 22nd of this year. Dr. Martin chose the anthrax bacillus for his investigations. He cultivated it on pure alkali-albumin, filtered this through Chamberland's filter, and proved by means of the microscope and further cultivation experiments that the filtrate contained no bacilli or spores. He obtained two poisonous proteids—albumoses — which produced in mice local œdema, and in larger doses a slow death in stupor and coma. But here, however, he went further than the German observers; he found also an alkaloid, similar in action to the anthrax albumoses, but much more powerful. The chief chemical characteristic of the purified albumoses, according to Dr. Martin, is their strong alkalinity in solution; as the alkaloid is a strong base and alkaline, he suggests that the alkalinity of the albumoses is due to the alkaloid being in a nascent condition in the albumose molecule. The alkaloids form crystalline salts in the forms of needles and prisms with mineral and oxalic acids. The importance of these observations cannot be too strongly commented on; they are the first of what will probably be a long series of experiments, and will greatly advance our knowledge of micro-organisms, and happily lead to improved methods of treatment.

CONVERSAZIONE AT THE MIDDLESEX HOSPITAL.

DESPITE the inclemency of the weather, the conversazione organised by the Middlesex Hospital Medical Society, which took place on Friday, July 4th, was a great success. The guests (to the number of over 2000) were received by Mrs. Pearce Gould and, in the unavoidable absence of the President through illness, by Mr. Fardon, the immediate Past President. The grounds of the hospital were most effectively illuminated by many thousands of fairy lights and Chinese lanterns, and the band of the 1st Life Guards played at intervals during the evening. In the large theatre Mr. Gregory had prepared a demonstration of photographs of astronomical nebulæ, and Mr. Andrew Pringle showed photo-micrographs of a series of specific micro-organisms. Colonel Gouraud gave an interesting account of Edison's phonograph, and the working of the instrument was practically demonstrated. The new type machine for writing "Braille" for the blind was shown by Mr. H. A. Phillips. In the physiological laboratory, Mr. Lowne illustrated the anatomy and development of the blowfly by microscopic sections, while Mr. Pound exhibited bacteria cultivated in gelatine films, and Messrs. Waddington and Burton brought specimens of living marine and fresh-water organisms. A model ward under the charge of "Sister Queen" was fitted up in the Common Room of the school, whilst the reception rooms in the College were most artistically decorated. In the museum and out-patient rooms were exhibits of the latest improvements in bacteriological and electrical apparatus and surgical instruments. There were two concerts, both of which secured an overflowing attendance; one in the dining hall of the College, at which Miss Alice Gomez and Mr. Ganz were among the performers, and the other in the demonstration room, which had been completely transformed for the occasion. This was conducted by Signor Romili; and Miss Carlotta Elliott and Mr. Arthur Oswald were assisted by many other well-known artistes in providing an excellent programme. The rain, which fell intermittently during the evening, converted part of the garden into a lake; and thus, while it proved a source of discomfort to many, it enhanced by reflexion the already beautiful effect of the illuminations. We should add that a very pretty illustrated programme was circulated, the drawings being executed by one of the students of the hospital.

THE MARTYRDOM OF A HOSPITAL APPOINTMENT.

MANY strange ideas of hospitals and hospital appointments are being aired just now before the Lords' Committee, and many vague and contradictory statements are made as to matters of fact which are apt to prejudice the public, or to convey an impression that witnesses are speaking at random and without that precision which is always to be expected in professional men. One view of the honorary surgeoncy to a great hospital came out rather strongly in the evidence of one witness—viz., that it involved great sacrifice on the part of the surgeon. This gentleman was of opinion that the honorary surgeoncy to a well-known hospital cost him very dear—lost him, in fact, £2000 a year. This is one way of putting it; but of course a very one-sided way. A surgeon devotes time to hospital work, but the work and the appointment give him reputation. He is not asked to hold the appointment longer than suits his own convenience. He can fix his private work for any hours and days which suit his hospital engagements. A dozen young rivals will only be too happy to relieve him of his hospital appointment, and to them it would not mean a loss of £2000 a year. We do not undervalue the great services to hospitals rendered by surgeons of secured fame. But they must not ask the public to pity them too much. It is not a form of martyrdom that can be too much magnified.

TUBERCULOSIS IN THE FOWL.

DR. ANGELO MAFUCCI of Pisa has made some important observations upon tuberculosis in fowls (*Centralbl. für Allg. Path. u. Path. Anat.*, No. 13), which go some way to show that there is an integral difference between that affection and the analogous disease in mammalian animals. The question is obviously of moment in regard to the possibility of transmission of tubercle to man. After giving the results of his inquiry, he says that there are three questions yet to be solved—viz.: (1) whether there exists in man a form of tuberculosis, local or general, similar to that of fowls; (2) whether one of these two forms, is an attenuation of the other, and if so, which? Hitherto he has failed to transmit by successive inoculation "fowl tuberculosis" from guinea-pig to guinea-pig, or mammalian tubercle from fowl to fowl. And (3) whether the two forms of tuberculosis may have a common origin, modified in the different classes of animals. Nocard states that the fowl can be attacked with bovine tuberculosis, but Mafucci has been unable to confirm this. The facts which he has ascertained so far are as follows: 1. That fowl tuberculosis differs in its cultures

from mammalian tuberculosis. 2. That fowl tuberculosis may be well cultivated and retain its pathogenic properties between 37° and 43° C. 3. That the guinea-pig and dog are able to destroy the bacillus of fowl tuberculosis, its inoculation in them often resulting in local abscesses. 4. That the guinea-pig may die of marasmus, without any tuberculous nodules forming, up to within four months after inoculation. 5. That the rabbit may exhibit the general as well as the local form of tuberculosis, but with a special type of structure of the tubercle and a greater quantity of bacilli than occurs in fowls. 6. That tuberculosis of fowls has great power of resistance to physical agents. 7. That the fowl is insusceptible to mammalian tuberculosis.

BURIAL OF HOSPITAL PATIENTS.

THE burial of the body of a patient who had died at the North-East London Hospital for Children has been the occasion of some discussion between the authorities of the institution and those of the parish. The house surgeon of the hospital made application to the magistrate at Worship-street for an order directing the vestry to undertake the burial, an application which was resisted on the part of the vestry on the ground that the burial of a hospital patient was no part of their duty. Eventually the order desired was made, upon the ground that the unburied body was a nuisance, but subject to the reservation that the vestry should be free to demand the cost of burial from the hospital, and to recover if so entitled. That the funds of a hospital should be liable to the cost of burial is very much to be regretted, and we think that in the case of a pauper patient it might well be made the statutory duty of the parish to which he was chargeable in life to provide for his burial after death. But we fear that there is no doubt as to the legal rights of the hospital and the authorities of the parish in which the hospital is situated. This question was very carefully considered in an action brought by the governors of St. George's Hospital many years ago against the guardians of St. George's parish in circumstances precisely similar to those now under consideration. The case is reported under the title of "Regina *v.* Stewart," and has long been the leading authority upon this point. It is there very clearly laid down that the parish funds are liable only to defray the cost of burial of paupers who die in some "parish house," unless in the cases for which the Poor-law or other special statutes provide; as, for example, the case of the bodies of drowned persons cast upon the shore. Apart from these exceptions—which do not cover the case of a patient dying in hospital—the householder in whose dwelling a poor person dies is bound to provide decent burial. Such, as we understand, is the law, and we supposed that it was generally known and recognised.

THE VULGARISATION OF MEDICAL SCIENCE.

IN an article contributed to the *Nineteenth Century*, Dr. Herbert Snow comes to the conclusion that there is a very notable increase in the prevalence of cancer, and that this increase is to be attributed less to the influence of heredity than to the high pressure of modern life, declaring, from his own experience, that conditions of mental distress and anxiety are exceptionally frequent as precursors of malignant disease. We are, we confess, less concerned with such hypothetical reasons than with the appearance in the pages of a popular journal of a discussion upon this subject. It seems to us to be wholly out of place, besides being likely to create much unnecessary alarm. The question is so purely one for the investigation of experts, and involves so much that is technical (*vide* Dr. Snow's attempt to popularise the description of the various forms of cancer), that it will either be passed over by the readers of the journal in question, or be productive of much confusion in their minds. The same writer contributes to the *National Review* a reply to the recent article by Lady Paget on Count Mattei and his cure for cancer. To this there is less objection, since the aim is to correct a misleading and mischievous teaching, which cannot fail to be disastrous to those who prefer empiricism to knowledge. But we would fain hope that the editors of these periodicals would see that no good purpose, scientific or other, is served by the discussion in their pages of abstruse problems of pathological interest. There is scope enough in art, literature, and politics for the most omnivorous reader of "reviews," and we question very much whether he really cares for medical disquisitions which he can neither appreciate nor comprehend.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE first public step was taken last week to arrange for the meeting of the International Congress of Hygiene and Demography in London next year. There was a large gathering at the Mansion House under the chairmanship of the Lord Mayor, who has given the movement his cordial approval, and who was supported by many distinguished members of the medical profession and other well-known public men. Sir Douglas Galton gave an account of previous congresses that had been held in various continental cities, and announced that the Prince of Wales had accepted the office of President. The Lord Mayor, in urging the claims of the Congress to public support, referred to the probability that the Corporation of the City of London would share in the labour of making the Congress a success, and announced that a subscription list had been opened. We trust that the Lord Mayor's appeal will meet with a cordial response. From £5000 to £6000 are required to meet the expenses which will be incurred, and this sum should, as soon as possible, be in the hands of the organisers of the Congress, in order that the necessary arrangements may be made. We do not doubt that every effort will be made to give a befitting reception to the many distinguished foreigners who will visit England on that occasion, and to maintain the character of this country for hospitality.

FEES FOR MEDICAL ATTENDANCE AT POLICE COURTS.

A QUESTION of some considerable importance to medical men was raised a few days ago at the North London Police-court. Mr. Gould, a medical practitioner, attended at the request of the police to give evidence. It appeared, however, that his evidence would be of such a character that the prosecution did not desire to call him, and he was consequently in a difficulty about obtaining the certificate necessary to entitle him to recover his fee. In these circumstances he applied to the magistrate for information as to whom he should consider liable to pay the fee. The London County Council had undertaken the prosecution, but had not made use of his evidence, and the police had desired him to attend. The matter was still further complicated by the circumstance that, in the opinion of the magistrates, it had been wholly unnecessary, and therefore improper, to call Mr. Gould at all. The magistrate, however, undertook, if he had power to do so, to see that Mr. Gould got the certificate, and we hope that he was able to give effect to this intention. The position in which Mr. Gould found himself was a very unpleasant one, and one, moreover, in which a medical man ought not to be placed. Perhaps the safest course for a practitioner to adopt when asked to give evidence would be to insist, before giving a "proof" to the party proposing to call him, either upon payment of the fee

or service of a subpœna. The subpœna will entail on the party using it the responsibility for the witness's expenses, whether called or not, and then a difficulty of the above kind could not arise.

METHODS FOR DETECTING HOSPITAL ABUSE.

THIS point is naturally a very leading one in the investigations into the administration of hospitals in Birmingham and in the Lords' Committee. We are sorry that so far these investigations do not seem to have elicited any effective way of detecting abuse. There seems a want of reality in the methods; and naturally the results are very slight. Thus at Birmingham, according to the replies received by the Hospital Reform Committee to questions on the subject, the most various means are used. In no two hospitals are the same methods relied on. And the answer to the question, "What number of persons, if any, were rejected during the past year on the ground of unfitness?" was as follows in the case of the General Hospital: "With 41,523 out-patients no record has been kept, but they are believed to have been very few." At the Queen's, with 27,035 out patients, 113 were rejected. The reply of the General Dispensary was "very few"; of the Eye Hospital "not more than twenty-five." There were thirty-three rejections at the Children's Hospital, and about six at the Women's. It is impossible to believe that such results show anything but the utter insufficiency of the tests, and this is very much the impression received from reading the reports of the evidence in the Lords' Committee.

SICKNESS AS A TEACHER.

ALL the circumstances of life are in some sort educative. Health and happiness have their lesson of active duty to teach us if we will receive it, and so, likewise, have pain, disease, and misfortune, as lately stated by Mr. Spurgeon, a purpose of correction, a chastening and a mellowing influence within them. With some natures and moods, perhaps, it is otherwise; the sharpness of the stroke touches no mental spring but that of self-concern, but here, again, it is the wise who learns. For him these evils, for such they still remain, are also the seeds of sympathy with others in like trouble. If he be through any fault of his own accountable for them, they are in true science as in Scripture the natural recompense of evil, a protest on behalf of needful self-control which he will do well to observe. There is more, therefore, than an apparent tendency to asceticism in this doctrine of disciplinary suffering. Of course, it does not follow that the prosperous and the healthy must at some time undergo this training by reverses. The same lessons of patience, fellow-feeling, and self-restraint can be learnt in other ways, and it is quite certain that the daily round and task abound in opportunities for such wholesome instruction. We are alike justified, therefore, in admitting for this purpose the frequent utility of pain, and in seeking, to the best of our ability, to limit and to destroy by suitable remedies the influence of this otherwise harsh and hurtful instructor. Health of mind and body and well-being of estate are alone consistent with perfect life as ordered by nature's plan and the Divine will, and every purpose of training is compatible with their full possession and their proper use.

SWIMMING AT BOARD SCHOOLS.

IN our last issue we referred to the fact that the London School Board had shown their sense of the importance of swimming as a branch of education, and were disposed to include it within their ordinary course of instruction. A report of the Physical Education Subcommittee, published recently, contains a summary of the steps taken by the Board in connexion with this matter. From the evidence here collected we learn that the total bath accommodation of the metropolis, consisting of forty-one public and thirty-six private baths, is by no means adequate to the requirements of the population. Still less can it be said to meet the case of the school children. The charge for admission, though trifling, usually from 1*d.* to 3*d.*, is in many cases too high, suitable hours and exclusive use of baths for a given time are by no means easy of arrangement, and the system of instruction still remains to be developed. Voluntary effort has already done much to meet the difficulties of the case. By this means baths have been erected in connexion with Board Schools in Birmingham, Liverpool, Bristol, and elsewhere, and swimming classes formed in Peckham, Lambeth, and other London districts have been able to make use of those already available for public service. On consideration of these circumstances the Board in 1873, and again in 1889, presented a memorial to the Education Department, proposing that the practical encouragement of Government aid should be so extended as to cover the expense of teaching swimming to Board scholars. In support of this proposal it may justly be maintained that no physical accomplishment is more useful to the learner, not even drill which is provided for under the present rules. Whether, on the other hand, it is a necessity, the cost of which must fall on the ratepayer, is a question which will bear further discussion. Meanwhile, two recommendations made by the Board are well worthy of support: (1) That school managers and masters ought to make use of all existing bathing facilities on behalf of their pupils; and (2) that powers of bath construction conferred by the Public Baths and Washhouses Act should be more freely used.

MISAPPLIED EXPERIMENTS.

IT must have excited some surprise in the minds of members of our profession to have received lately a testimonial to the virtues of one of the numerous meat preparations which are now in vogue, based on a report of some experiments made in a well-known pathological laboratory, for the purpose of testing the absorbability of the substance in question. The investigator admits that confirmatory evidence of his observations is required, and it is somewhat appalling to contemplate the lengths to which such experimentation might be put by the trader in meat juices. The best proof of the value of such preparations lies in the evidence of their utility as restoratives to the sick. Comparatively little that is valuable can be added by experimental physiology, which is out of place when applied to such purposes as the above.

DEATH OF MR. W. K. PARKER, F.R.S.

MR. W. K. PARKER, who died suddenly at his son's house in Cardiff a few days ago, was not much heard of in the medical profession, but we cannot afford to forget that if he was F.R.S. and F.Z.S., and gave these societies as much glory as he gained from them, he was also M.R.C.S. Eng. and L.S.A. We like to think that the basis of his higher titles was, as it always should be, on his more modest ones, and that, as in so many cases—notably, for example, that of his friends Owen and Huxley,—his genius in biology was lit and fed by his studies in anatomy necessitated by his profession. It is confirmation of this that, though of late years he has been deeply immersed in all the problems of embryology and evolution, and thinking more of the foraminifera than of the febricula which used to be his care, he has never forgotten that he was a surgeon and an apothecary, and never ceased to enjoy the fraternity of his colleagues in the more practical regions of science. By all workers of good, and by all searchers for truth, biological

or theological, Mr. Parker will be sorely missed. His nature was of the very sweetest. A true Christian, his simple faith was entirely undisturbed by discoveries and speculations, which he enjoyed the more from the conviction that they were little incursions into regions of illimitable extent dominated by Him in whom he believed with a perfectly simple faith. There have been few more perfect instances of that combination of child-like nature with far-reaching vision, to the possessors of which revelations are made both in the world of nature and of grace.

CHOLERA INTELLIGENCE.

THE general tenour of the news from Spain is indicative of a subsidence of the cholera epidemic. At Gaudia there were between June 15th and July 1st 144 cases and 36 deaths, and during the next two days 10 cases and 5 deaths were reported from that place. The other towns and villages specified as having suffered since our last issue are Alcira, Magenta, Cullera, Fortaleny, Rolova, and one attack is said to have occurred in Valencia itself. The official cholera bulletin announced a total of 29 cases and 18 deaths on July 5th, and 21 cases with 13 deaths on July 6th; and on July 7th there was a general statement to the effect that there had been some increase of the disease in the province of Valencia, Gaudia and Rolova being specially named as affected. But whilst news has been thus irregular, a somewhat ominous telegram has been received to the effect that the civil authorities have endeavoured to deceive the Spanish Government as to the real state of affairs in their several districts, and that cholera is much more extensively prevalent in the province of Valencia than the published returns indicate. Under these circumstances, it is evident that it would be impossible at the present moment to give any trustworthy forecast as to the future of cholera in Spain. But it is satisfactory to learn that there has been no spread of the disease beyond the limits of that country, and especially that no single case has occurred in France. On the Franco-Spanish frontier exceptional measures of precaution are taken, and these precautions are of a more rational sort than any ever yet resorted to in Southern Europe. But in some respects old and useless customs are maintained; thus, almost at the last moment we read of the disinfection of letters and mails. Whether this process is anything more than the time-honoured custom of transfixing the letters and newspapers with a knife-like instrument, and fumigating their outsides until they smell very disagreeably, we are as yet unable to say.

THE FRENCH AND THE BERLIN CONGRESS.

IT must be a matter of sincere regret that many of our French *confrères* are advising their countrymen to abstain from taking any part in the proceedings of the International Congress. It may be remembered that when this policy was first mooted many distinguished French physicians and surgeons declined to give in their adhesion to it. One of the foremost to urge that science was above politics was M. Huchard, who in some eloquent and trenchant phrases declared that French *savants* ought to attend the Congress. Unhappily, he is no longer of this opinion, for in the journal he edits with so much ability (*Rev. Gén. de Clin. et de Thérap.*) he has recently recanted his former declaration, on the ground that in 1871 Professor Virchow, in a paper published in his *Archiv*, cited the opinion of Dr. Stark that the French people were, as to their general mental state, not far removed from paralytic idiocy, or *folie raisonnante*. Dr. Huchard, imputing this expression of opinion to Professor Virchow himself, declares that it is impossible for any self-respecting Frenchman to attend a Congress presided over by him. He concludes by pointing out that almost simultaneously with the Berlin meeting there is to be held at Limoges the annual meeting of the French Association for the Advancement of Science; and he for one will preferably take part in that meeting. To this Dr. Ewald, the editor of the *Berliner Klin. Wochenschrift* (July 7th) replies in a dignified manner, pointing out that the obnoxious phrase complained of was not Professor Virchow's own, and that, indeed, he did not endorse it; whilst looking to the diverse mental constitution of the two nations, it is quite reasonable for the one to regard as morbid what is normal to the other. It is, indeed, a misfortune to science that such misunderstandings should be suffered to arise, and we may express the hope that even at this eleventh hour good sense will prevail. We are sure that few of the guests for whom Berlin is making such lavish preparation will be more welcome than those who come from the other side of the Rhine.

EVIDENCE OF NURSES AT THE LORDS' COMMITTEE ON HOSPITALS.

THE evidence given before the House of Lords' Committee on the subject of the nursing at the London Hospital was on Monday and Thursday last supplemented by evidence given in behalf of the institution by Mr. G. Q. Roberts, the secretary, and by Miss Lückes, the matron. They contradicted the most material of the allegations which have been made to the detriment of the hospital, and the result is that a very serious conflict of evidence has occurred, to examine and decide upon which will be an arduous task. The matter is not yet threshed out, and it would be at once gratuitous and premature to undertake the invidious task of forming and expressing an opinion on the matters in dispute at the present moment. It occurs, unhappily, only too often, that the public hear the accusations, but do not hear the reply. It is therefore the more incumbent on those whose interest in the question being agitated is sufficient to carry them with sustained attention through the whole controversy to pursue it with an impartial temper and unbiased mind.

FOREIGN UNIVERSITY INTELLIGENCE.

Brussels.—Dr. Depage has been appointed *Agrégé*.

Constantinople.—Dr. Djémal Bey has been appointed Extraordinary Professor of Surgery.

Innsbruck.—Dr. Moriz Loewit has been promoted to the Professorship of General and Experimental Pathology.

Liége.—Dr. Schiffers has been given the charge of the Ear and Throat Department.

Prague (Bohemian University).—Dr. Tomsa, Professor of Physiology, has been appointed Dean for the ensuing academical year. Dr. Johann Mitvalsky has been recognised as *Privat-docent* in Ophthalmology.

Prague (German University).—Dr. Karl Rabl has been appointed Dean of the Medical Faculty for the ensuing academical year.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. A. Wiegand, Prosector of the Ujazdowski Hospital, Warsaw.—Dr. Franz Kiemann, Primararzt of the Rudolf Hospital, at the age of fifty-one.—Dr. Chancerel, Professor of Hygiene and Therapeutics in the Medical School of Caen.—Dr. Maestre de San Juan, Professor of Histology and of Pathological Anatomy in Madrid.—Dr. Bertherand, editor of the *Journal de Médecine et de Pharmacie de l'Algérie*.

THE Royal College of Surgeons of Edinburgh having, by the generosity of his Excellency Dr. Robert Halliday Gunning, been enabled to institute a Triennial Prize of £100 called "The Liston Victoria Jubilee Prize," open to all Fellows and Licentiates of the College for the greatest benefit done to Practical Surgery by any of these during the triennial period, appointed a special committee for the adjudication of the prize for the triennial period prior to June 20th, 1890, and the same was awarded to Robert Lawson Tait, Birmingham, a Licentiate and Fellow of the College.

THE Royal College of Physicians of Edinburgh is to be represented at the Tenth International Medical Congress in Berlin by Dr. Grainger Stewart, physician to Her Majesty the Queen in Scotland, Professor of Practice of Physic and of Clinical Medicine in the University, President of the College; by Dr. Batty Tuke, Lecturer on Insanity in the Edinburgh Medical School, member of the General Medical Council; and by Dr. G. A. Gibson, Lecturer on the Practice of Medicine in the Edinburgh Medical School, secretary to the College.

THE sixty-third meeting of German Naturalists and Physicians will be held at Bremen from Sept. 15th to the 20th. The last occasion when that learned body met there was in 1884, but since that year it has largely increased in number, and now as many as 1000 members have sent in their names as intending to be present on Sept. 15th. The organising committee, meanwhile, aided by the Municipality, are taking every step to make the meeting as successful as the best of its predecessors.

THE Italian War Office has issued the sanitary returns of the army for 1888, according to which the proportion of men on the sick list was 732 per 1000 of the force—that is to say, 28 per 1000 less than in 1887. The mean mortality was 8·7 per 1000, as in 1887. The loss to the effective force on account of sickness amounted to 14 per 1000—in other words, 1·6 per 1000 less than in 1887.

THE Italian Government has ordered that only medical men shall henceforth be entitled to practise dentistry and bloodletting—an order which will interfere with the practice of a large number of quacks, and which is therefore looked upon with satisfaction in medical circles.

BRISTOL GENERAL HOSPITAL.

MONOPOLY OF HOSPITAL APPOINTMENTS.

A SPECIAL general board of governors of the above hospital was held on Wednesday last (Alderman Proctor Baker, J.P., in the chair), in accordance with an influentially signed requisition to consider proposals to alter the rules as regards qualification for admission to the hospital staff. There was a very large attendance.

Mr. JAMES STEWART, F.R.C.P. Edin., as a governor of the hospital, moved the first resolution: "That the offices of physician and physician-accoucheur should be open to Fellows or Members (by examination) of all three Royal Colleges of Physicians as well as graduates in medicine of any University in Great Britain or Ireland; that the offices of surgeon and ophthalmic surgeon should be open to Fellows (by examination) of the three Royal Colleges of Surgeons as well as to Masters of Surgery of a University in Great Britain or Ireland." He pointed out that the change suggested would put the various Colleges on an equal footing as regards honorary appointments. He had been specially deputed by the Irish Colleges to repudiate emphatically the insinuation that their higher diplomas were granted after examinations inferior to those to which the London Colleges submitted candidates, and challenged any proof to the contrary. The "hall-mark" which was put on the Members of the Irish College of Physicians and on the Fellows of the Royal College of Surgeons of Ireland after they had passed their honours examinations was as reliable evidence of the genuineness of the article, as that afforded by the mark of the corresponding London Colleges. There could not possibly be a more severe test of the highest surgical attainments than that to which all Fellows of the Irish Colleges were subjected. He would gladly submit the question with regard to this to a jury of medical men selected in any way the monopolists might choose. He had elicited the opinions of some 200 medical men holding appointments on the honorary staffs of all hospitals with fifty beds and upwards in the twelve Western and West Midland Counties. An analysis of the replies showed a percentage of 78 in favour of the abolition of the monopoly now existing, the remaining 22 per cent. being largely made up of replies from the holders of appointments in Bristol. It was a striking fact, however, that on his side were ranged the whole of the consulting staff of that hospital, and that these were supported by such men as Professor Humphry, F.R.S., Sir Thomas Crawford, K.C.B., Professor MacAlister, F.R.S., and a host of other men occupying the highest positions in their profession.

Mr. HERBERT THOMAS, J.P., as an old governor, seconded the resolution, and said that even if the examinations for the higher diplomas were more advanced in London than in Edinburgh and Dublin—which seemed unlikely,—the governors, who, like himself, were not members of the medical profession, ought to hesitate before they determined to keep the door shut against men of the highest capacity, because they had not obtained merely a particular diploma.

Dr. SKERRITT opposed the changing of the rule. He said that in the counties to which Mr. Stewart had sent his circular there was only one town with a medical school besides the Bristol one. Only in Exeter and Birmingham were the hospitals as large as at Bristol, and small institutions found it impossible to attain to the same degree of accuracy in work as an institution like the Bristol General Hospital. The question Mr. Stewart ought to ask was whether they considered the Irish and Scotch Fellowships equal in value to the English. He (Dr. Skerritt) never had heard it asserted that either of these Colleges was equal in reputation to the English one. As to the degree of M.Ch., there was no special surgical examination for it at any Scotch College beyond that for the M.B. It was simply picked up by any M.B. who chose to pay the additional fee. He thought Mr. Stewart had overweighted his vessel by taking on board the Scotch Colleges.

Mr. HENRY NAISH said that with two exceptions the House Committee were agreed that there should be no alteration in the present rule, which had been in force for four years, and the acting staff had not complained in any way of its not working well.

Dr. H. MARSHALL said the qualification under which he had been appointed to the staff was the Scotch diplomas, which he would not exchange for any others in the kingdom. In a document issued by the Committee it was stated that it was admitted in the medical profession that the reputation of the English Colleges stands higher than that of the Irish and Scotch. This statement was not correct. He gave the London College credit for improvements they had recently effected, but it was not the only College which had made advances in accordance with medical opinion. The Edinburgh College of Surgeons had granted its Fellowship for the last ten years only after a severe examination,—so severe that only three of the last twelve candidates passed.

The Rev. CHARLES GRIFFITHS said that as most of their students went in for London diplomas they ought to have as teachers in the medical school diplomates of London Colleges. When the challenge of THE LANCET was taken up, and the Edinburgh and Dublin Colleges proved that their diplomas had a significance, as tests of superior attainments equal to the London Fellowship, it would be time enough for the hospital to throw the appointments open to their graduates.

Mr. G. H. WOLLASTON quoted from a letter he had received from Professor Humphry of Cambridge, in which that high authority said that there was no reason why the posts on the hospital staff should not be open to the Fellows of the Scotch and Irish as well as to those of the London Colleges.

Mr. R. W. COE, F.R.C.S., said that this was a question of injustice to a large body of men. As a London Fellow, he said deliberately that the Fellowship examinations in

Scotland and Ireland were quite as stringent as those in England, and on this point he invited the opinion of those holding the highest positions in the surgical world. What better opinion on such a point could they have than that of Professor Humphry? He had written in a letter he (the speaker) received from him lately that "such exclusiveness tends to foster ill-feeling between members of the profession in different parts of the kingdom." General opinion was opposed to such exclusiveness, which was a form of boycotting of the worst kind, with the result that the holders of qualifications equal to London ones, and with intellects as capable, were much under-estimated.

Dr. J. G. SWAYNE maintained that the Irish Fellowship Examination was a superior test of surgical skill to the corresponding English qualification.

Mr. W. Pethick, Sir George Edwards, J.P., and Mr. W. M. Webb having spoken in favour of the alteration, the Board divided, and the resolution was lost by a large majority.

THE NEW FRENCH HOSPITAL.

THIS hospital, which was opened by the French Ambassador on the 3rd inst., is situated at the northern end of Shaftesbury-avenue, and will doubtless prove a great boon to many of the poor French inhabitants of this city. The building occupies a piece of land extending from Shaftesbury-avenue to St. Martin's-lane, the main entrance being in the former and the out-patients' entrance in the latter thoroughfare. The accommodation is for sixty patients, and is intended for every class of case. It was not possible on such a small plot of land to erect a model building, but nevertheless great praise is due to the architect and committee for the ingenious manner in which so limited a space has been turned to account. On the ground floor are the offices, committee room, operating room, and a ward for casualties. On the first floor are wards for women, including a small children's ward and a maternity ward. The second floor is for male patients. On the third floor are more wards, together with the house-surgeon's quarters, and a small room which is to be used as a chapel for the "sisters" in charge. There is a smoking-room for the men, having a balcony overlooking the street, and a library is being formed for the use of the patients. The mortuary is placed at the very top of the building, and the kitchens are in the basement. A lift goes from the bottom to the top of the building, and the heating arrangements appear to be excellent. There is an ample supply of baths, and the various sanitary appliances seem to be of a good type. The wards are all of them quite small, containing on an average about four beds each. Most of them are supplied with a small gas cooking stove, which cannot fail to afford great comfort and convenience. The committee have wisely placed this building in close proximity to the French quarter of the town, and we do not doubt that the new hospital will have a career of great and beneficent utility.

On Saturday last a *grande fête Française* took place at the French Exhibition, in aid of the funds of this hospital. The fête was opened at two o'clock by the French Ambassador, M. Waddington, and some very special attractions were provided for the occasion, chief amongst which was the visit to the Exhibition of the band of the Republican Guard, consisting of eighty performers, who in the afternoon and evening discoursed admirable music. Charity stalls were doing a brisk trade for the benefit of the hospital, and ladies did their utmost to tempt the visitors to expend something on behalf of this beneficent purpose. In the evening the grounds were beautifully illuminated, and as the result of the fête the funds of the hospital must have been considerably augmented.

CATERHAM IMBECILE ASYLUM.—The annual visit of the managers of the Metropolitan Asylums Board to this institution was made on Saturday last. This establishment, which is the largest of its kind, provides for over 2000 harmless pauper lunatics, the average cost of the maintenance of each inmate being less than 4s. a week. The asylum, which is under the care of Mr. Elliot, appears to be excellently managed.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Surbiton Urban District.—It is somewhat difficult to estimate the population of Surbiton, but on the assumption that it is 11,000, the general death-rate for 1889 would be 9·09 per 1000, and the total amount of zymotic death is made up of one fatal case of measles and one of diphtheria. The sewage, as such, is now withdrawn from the Thames, but after treatment the resulting fluid is regarded as a harmless effluent, which passes into the stream. The notification system has brought to the fore the need for a hospital, and it is now suggested that some arrangement should be made to secure admission of Surbiton cases into the hospital, which some years ago the rural authority had the foresight to persist in erecting, and this notwithstanding opposition, some of which came from Surbiton itself. The suggestion is, however, a very proper one; indeed, united action should have taken place from the first. Dr. Coleman appends to his report a summary showing that systematic sanitary work is maintained.

Glanford Brigg Rural District.—Mr. J. B. Moxon records a death-rate of 16 per 1000 for this district, and almost for the first time he is able to say that both the general mortality and the infant mortality were lower in the ironstone villages than in the agricultural areas. This, he contends, is a matter for satisfaction. In this we entirely agree if it is the result of permanent sanitary improvements which have been effected in these ironstone villages. Sewerage works are, however, sadly needed in some localities, notably at Barrow and New Holland. Phthisis is less frequent than formerly, this result having ensued on the completion of drainage works, and the drainage of other villages is in progress or contemplation.

Malton Urban District.—The general death-rate during 1889 was 16 per 1000, and the zymotic rate was 1·9 per 1000. The report is largely statistical, but amongst other matters referred to it is stated that skilled advice will be sought to remedy the present discoloured state of the public water service. Dr. Wm. Young also refers to certain occurrences of disease, and to his systematic work.

Malton Rural District.—It is not quite clear in this report what the Malton rural district consists of, for though the report deals professedly with that district, it proceeds to divide the area reported on into five districts, of which the "Malton rural district" is only one. But assuming that the so-called combined districts are merely registration districts, all within the Malton rural sanitary district, we have a death-rate during 1889 of 12 per 1000, and a zymotic rate of 1·3 per 1000. The details as to sanitary work given by Dr. W. Young, whilst of local value, present no features of general interest.

Crickhowell Rural District.—Mr. Philip E. Hill, in reporting once again on the Crickhowell rural district, is able to refer to a diminished death-rate, and to assign it to improvements effected in sanitary works, such as extended drainage. The several causes of diseases in the district are dealt with in detail, and it is shown that the spread of the infectious fevers was kept in check by such measures as school-closure in the case of measles. The Cwmbeth brook causes grave nuisance, and it is clear that the sanitary authority will make serious default unless they deal with the matter by providing proper means of disposing of the sewage which now fouls the stream. Amongst other matters to which attention is drawn is the serious nuisance arising from the defective midden-privy system.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5553 births and 3236 deaths were registered during the week ending July 5th. The annual rate of mortality in these towns, which had been 17·9 and 16·9 per 1000 in the preceding two weeks, rose again last week to 17·4. The rate was 17·5 in London and 17·3 in the twenty-seven provincial towns. During the thirteen weeks of the quarter ending

on Saturday last the death-rate in the twenty-eight towns averaged 19·1 per 1000, and was 0·8 below the mean rate in the corresponding periods of the ten years 1880–89. The lowest rates in these towns last week were 6·7 in Brighton, 12·1 in Bristol, 12·6 in Norwich, and 12·8 in Portsmouth. The rates in the other towns ranged upwards to 21·3 in Preston, 21·8 in Cardiff, 25·2 in Bolton, and 25·3 in Manchester. The deaths referred to the principal zymotic diseases, which had been 464 and 446 in the preceding two weeks, rose again last week to 464; they included 150 from diarrhœa, 132 from measles, 92 from whooping-cough, 45 from scarlet fever, 29 from diphtheria, 16 from "fever" (principally enteric), and not one from small-pox. The lowest death-rates from these diseases were recorded in Wolverhampton, Bristol, Brighton, and Blackburn, and the highest rates in London, Leicester, and Preston. The greatest mortality from measles occurred in Birmingham, Derby, London, and Plymouth; from whooping-cough in Norwich; and from diarrhœa in Leicester and Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the twenty-eight towns. The 29 deaths from diphtheria included 21 in London and 2 in Salford. No death from small-pox was registered in any of the twenty-eight towns. Only one case of small-pox was under treatment in the Metropolitan Asylum Hospitals at the end of the week, and not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1283, against numbers increasing from 1067 to 1247 on the preceding six Saturdays; the new cases admitted during the week were 150, against 143 and 136 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding three weeks from 240 to 206, rose again to 244 last week, and exceeded the corrected average by 43. The causes of 68, or 2·1 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Brighton, Portsmouth, Leicester, Manchester, and in four other smaller towns. The largest proportions of uncertified deaths were recorded in Salford, Sheffield, Bristol, Preston, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·1 and 20·6 per 1000 in the preceding two weeks, further declined to 19·9 in the week ending July 5th, and exceeded by 2·5 the rate which prevailed during the same period in the twenty-eight English towns. The rates in the eight Scotch towns ranged from 12·5 in Perth and 13·9 in Paisley to 21·3 in Dundee and 24·4 in Glasgow. The 514 deaths in the eight towns showed a decline of 20 from the number in the previous week, and included 28 which were referred to measles, 24 to whooping-cough, 10 to diarrhœa, 7 to diphtheria, 4 to "fever," 3 to scarlet fever, and not one to small-pox. In all, 76 deaths resulted from these principal zymotic diseases, against 95 and 80 in the preceding two weeks. These deaths were equal to an annual rate of 2·9 per 1000, which exceeded by 0·4 the mean rate last week from the same diseases in the twenty-eight English towns. The highest death-rates from these diseases were 3·4 in Aberdeen and 3·9 in Glasgow and in Greenock. The fatal cases of measles, which had been 41 and 26 in the preceding two weeks, rose again to 28 last week, of which 22 occurred in Glasgow. The deaths referred to whooping-cough, which had been 37 and 33 in the previous two weeks, further declined last week to 24, and included 10 in Glasgow, 5 in Aberdeen, and 4 in Edinburgh. The 7 deaths from diphtheria showed a further increase upon recent numbers, and included 4 in Dundee and 2 in Glasgow, and of the 4 fatal cases of "fever," 2 occurred in Aberdeen. The deaths referred to diseases of the respiratory organs, which had been 110 and 88 in the preceding two weeks, rose again last week to 102, and exceeded by 22 the number in the corresponding week of last year. The causes of 44, or more than 8 per cent., of the deaths in the eight towns were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 20·8 and 22·8 per 1000 in the preceding two weeks, further rose to 23·1 during the week ending July 5th. During the thirteen weeks of last quarter the death-rate in the city averaged 23·6 per 1000, the rate for the same period being 17·3 in London and 19·3 in Edinburgh. The 156 deaths in Dublin showed an increase of 4 upon the number in the previous week; they included 4 which were referred to whooping-cough, 3 to "fever," 1 to diphtheria, and not one either to small-pox, measles, scarlet fever, or diarrhœa. Thus the deaths from the principal zymotic diseases, which had been 7 and 15 in the preceding two weeks, declined again last week to 8; they were equal to an annual rate of 1·2 per 1000, the rate from the same diseases being 3·3 in London and 1·3 in Edinburgh. The fatal cases of whooping-cough, which had been 4 in each of the preceding two weeks, were again 4 last week. The deaths referred to different forms of "fever," which had been 2 and 5 in the previous two weeks, declined last week to 3. The deaths included 33 of infants aged under one year and 44 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a considerable increase upon those recorded in the preceding week. Three inquest cases and 4 deaths from violence were registered during the week; and 48, or more than a third, of the total deaths occurred in public institutions. The causes of 24, or nearly 17 per cent., of the deaths were not certified.

Correspondence.

"Audi alteram partem."

THE RECENT ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—Would you kindly permit me through the columns of THE LANCET to thank the Fellows who were good enough to support me with their votes, and to make a single remark concerning the result of the election from a point of view which is eminently unsatisfactory? As you have been good enough to point out in your columns on more than one occasion, my candidature has been based on the ground that at present the provincial Fellows of the College have a most inadequate representation on the Council, and I personally favour the view that reform of the College in certain directions is eminently desirable. I should have thought that in the estimation of the provincial Fellows of the College the first argument would have been sufficiently powerful to have prevented a line of action which I think all fair-minded men must condemn, for the disproportionate representation of the provincial Fellows and the provincial schools is no mere sentimental grievance, but a most substantial hardship which the new scheme of the University of London will accentuate beyond all bearing.

To my immense surprise I found that a number of Mr. Mitchell Banks' supporters were issuing circulars and letters pressing those upon whom they could exercise influence, all over the country, to plump for Mr. Banks, or at least to refrain from giving me a second vote. Upon remonstrating with Mr. Banks upon this objectionable proceeding, I learned to my satisfaction that he had no part in it, nor did it meet with his approval. The result of it clearly has been that I have been deprived of a number of votes far more than sufficient to have carried me into the third place; whilst Mr. Banks has been supported by an unprecedented number of plumpers absolutely useless to him. His claim to succeed as a representative of a large medical school and a large provincial centre was overwhelming, and his supporters might have felt perfectly certain of his success without indulging in the performance which I think is without precedence in any kind of collegiate election. What was done by myself and my friends was to indicate, on every occasion where it was required, that Mr. Banks should have a second vote, and in this way, I have no doubt, between fifty and sixty votes were secured for him.

I am, Sirs, yours faithfully,

July 8th, 1890. LAWSON TAIT.

THE INFLUENZA EPIDEMIC.

To the Editors of THE LANCET.

SIRS,—During the progress of the influenza epidemic of last winter and spring in the borough of Nottingham I issued circulars of inquiry to the heads of business houses,

factories, local depôts, municipal departments, and the like, with an aggregate staff of 8374 persons, asking for a return of—(*a*) the total number of *employés* in each establishment, (*b*) the absentees from reputed influenza and other diseases during successive weeks in the first four months of the current year (fresh cases only being given for each week), and (*c*) the average number of absentees during corresponding weeks of past non-epidemic years. Suitable tables were appended to my circular, requiring only to be filled up with the necessary figures in each case. I am pleased to say that I met with so cordial a response to my inquiry that only a very small fraction of the list of establishments previously prepared remained at the end unaccounted for.

During the week of greatest prevalence the death-rate of the town (per 1000 of population per annum) was increased by no less than 8·1 above the average, and the deaths returned as due to bronchitis, pneumonia, pleurisy, and influenza by exactly 100 per cent. above the average for the corresponding week of the past five weeks. I have made no reference in the table to age or sex, for after the first five years of life (up to which point there appears to have been a considerable amount of immunity in both sexes), all seem to have been attacked alike.

I have given a short account of the meteorological conditions existing throughout the epidemic, but, as observed elsewhere, they do not appear to have exerted any influence upon its progress, the regularities of its upward and downward curve being unbroken, notwithstanding extreme variations in the weather. With the exception of scarlet fever, a mild epidemic of which has existed in the borough for some months past, the sickness and mortality from all zymotic diseases were below the average throughout the winter and spring. So far as I have been able to gather by careful inquiry of competent persons there was not, before, during, or after the epidemic, any unusual sickness among local animals, domestic or otherwise.

I am, Sirs, yours faithfully,

PHILIP BOOBBYER,

June, 1890. Medical Officer of Health for Nottingham Borough.

INFLUENZA AND OTHER DISEASES IN NOTTINGHAM BOROUGH, FROM WEEK ENDING JAN. 18TH TO WEEK ENDING APRIL 19TH, 1890.

—	WEEK ENDING													
	Jan. 18.	Jan. 25.	Feb. 1.	Feb. 8.	Feb. 15.	Feb 22.	Mar. 1.	Mar. 8.	Mar. 15.	Mar. 22.	Mar. 29.	Apl. 5.	Apl. 12.	Apl. 19.
Influenza—fresh cases among 8374 persons employed in various occupations	26	64	160	240	308	312	274	210	154	104	78	26	22	—
Other diseases (ditto, ditto, ditto) entailing absence from work	101	130	146	168	152	150	158	156	166	124	106	98	82	85
Average number of absentees at ordinary times from all diseases	86	—	—	—	—	—	—	—	—	—	—	—	—	—
General death-rate of Nottingham	15·9	17·9	15·4	20·6	25·6	26·8	22 7	23·4	20·6	20·9	19·1	15·0	19·5	15·6
Mean rate for corresponding weeks of recent years	18·7	—	—	—	—	—	—	—	—	—	—	—	—	—
Total deaths from influenza (Nottingham, 1890)	—	1	—	1	2	6	3	5	3	4	2	1	—	—
(Ditto, ditto, ditto) bronchitis, pneumonia, pleurisy (1890)	19	22	15	29	40	36	36	29	24	23	13	11	18	6
(Ditto, ditto, ditto), average for past five years	16	18	17	19	21	21	21	22	17	23	19	15	17	—

The temperature from Jan. 5th to the end of the month was remarkably high, having a mean daily reading of no less than twelve degrees above its average. The atmospheric pressure was slightly below the average from the 15th to the 29th, and somewhat unusually variable. The rainfall was slightly above the average, and south-westerly wind was prevalent. The temperature in February was below the average almost throughout. Atmospheric pressure was above the average throughout the month. The rainfall was small. Cold winds from east and north-east. The weather of March was very variable, extreme readings of both barometer and thermometer being frequently recorded. South-westerly wind was prevalent, and the fall of rain was slightly in excess of the average. The beginning of April was for the most part fine, dry, and cold, with a high barometer. The recorded cases of, and deaths from, all zymotic diseases except scarlet-fever were considerably below the average during the whole of the winter and spring.

Establishments from which returns were obtained:—Railway depots, gas department, police and prison, sanitary department, hosiery factories, water department, hosiery warehouses, lace factories, lace warehouses, machine factories, silk mills, shoe manufacturers, and printing offices, with some small business houses and private offices.

These selected establishments were situated in all parts of the town, and their *employés* may be taken as fairly typical of the great mass of its population.

The above table gives, in as concise a form as possible, the most important part of the information I was able to gather, together with other statistics useful for purposes of comparison. It will be seen that the local epidemic practically commenced about the middle of January, that it reached its maximum of both prevalence and fatality during the week ending Feb. 22nd, and that it rapidly declined after the end of March, although occasional cases continued to be reported for some eight weeks after this.

THE METROPOLITAN POLICE.

To the Editors of THE LANCET.

SIRS,—As I have no doubt you desire to place before your readers an impartial account of the dispute which has already led to such unhappy results in regard to the metropolitan police force, I trust you will permit me to refer as briefly as possible to some points which, though not alluded to in the article published in THE LANCET of July 5th, are considered of great importance from the point of view of members of the force, and which bear more especially upon the medical aspect of the matter. The complaint of the men, as I understand it, is that, though all of them from the moment of joining the force have deductions made from their pay towards a pension fund, none but those who are certified as unfit for further service by the chief surgeon and one of the divisional surgeons can at present retire with a pension, even after twenty-five years' service. It will emphasise what I have to say by-and by as to the importance attached to this certificate and to the medical examinations which precede it, if I mention that it is chiefly as to the injustice of requiring it that I have heard complaints during the years I have been connected with the force as divisional surgeon. When the present Superannuation Bill was under consideration, what was asked for by the police was that they should be allowed to retire after twenty-five years' service on a pension of two-thirds pay, *without medical certificate* and without reference to any

wage-limit. When you state that the Bill adopts the time-limits of fifteen and twenty-five years as defining the limits within which retirement is to take place *at the option of the constable*, there is, I think, some misapprehension. Under the Home Secretary's Bill there will be, if I am rightly informed, no such thing as retirement with pension, *at the option of the constable*, until he has served twenty-five years. Before that time he can only retire on pension if invalided, and certified by the chief surgeon to be unfit for further service. The valuable concession which is given by the Bill, and which the police pressed for very strongly, is that after twenty-five years' service a police constable shall be able to retire with a pension *as a right*. This the Bill concedes; but the amount of pension asked for, two-thirds pay, is not conceded until a man has served twenty-eight years.

The remarks in your article as to the proportion of 329 possible pensioners to 15,000 strength may tend to obscure the point towards which the men's demands are directed. Whatever may be the scientific method of determining the true method of calculation, what the men wish to show is that, as a matter of fact, the number who are able to serve for twenty-five years and enjoy the pension of two-thirds pay is really small. This can easily be shown in two ways: first, by reference to returns showing average limit of service in the force; secondly, by reference to the number of pensions which are granted to men who have served twenty-five years and upwards. On the first point, the medical official returns show that the average service of men of all ranks is about twenty-two years.

As to the second point, the number of constables and sergeants who have retired on pensions during the last twenty years has been, roughly speaking, 3400; of this total, only about 800 have served twenty-five years and upwards, whereas the number invalided and granted pensions before attaining twenty-five years' service is 2600; that is to say, that three-fourths of the men pensioned do not succeed, on medical grounds, in attaining the limit of twenty-five years' service, while only one-fourth do so succeed. These facts seem to me to amply sustain the point which is referred to in the police representation, without any reference to the proportion between 329 and 15,000.

Consideration for your space makes me refrain from comment on other points except one, on which I feel that the opinion of the profession as a whole ought to be heard. In *The Times* of June 28th the Home Secretary, in introducing the Police Superannuation Bill in the House of Commons, is reported to have said: "Under this Billl the medical inspection and certificate upon which these pensions are awarded *are to be made realities*." (The italics are mine.) "We mean that the men should be really invalided, and *therefore provision is made for examination by independent medical men*." This means, if it means anything, that the medical examinations and certificates to which the men have attached so much importance in past years have been, in the Home Secretary's opinion, mere shams. What has THE LANCET to say to such an accusation, and what does it think of the proposal to rectify the supposed evil? I am, Sirs, yours obediently,

Dulwich, July 8th, 1890. H. NELSON HARDY.

ICE IN STRANGULATED HERNIA.

To the Editors of THE LANCET.

SIRS,—It would, I think, be discourteous in me to ignore the letters of your correspondents who have taken exception to a recommendation in my clinical lecture on "Strangulated Hernia" (THE LANCET, May 24th, 1890), against the application of ice. I must ask those gentlemen to remember that I was lecturing to students, and was bound to be a trifle dogmatic. I particularly insisted upon the simplicity of the operation and the danger of delaying it, and I deprecated (I think rightly) the application of ice to a *bonâ-fide* strangulated hernia. I have seen it frequently used in the practices of former colleagues, and I never saw any good come of it; but I have a very lively recollection of a large umbilical hernia in which gangrene of the skin, as well as of the bowel, had been induced by the application of ice before the patient was brought to the hospital. At the same time I am quite ready to allow that there are cases of irreducible hernia with congestion, which in a few hours might easily run on into strangulation, where the application of ice may lead to reduction, and I do not hesitate so to employ it; but these are hardly cases of strangulated hernia.—I am, Sirs, yours obediently,

Cavendish-square, July 6th, 1890. CHRISTOPHER HEATH.

"EVIDENCE OF NURSES AT THE LORDS' COMMITTEE ON HOSPITALS."

To the Editors of THE LANCET.

SIRS,—I am glad to see your article in the last number of THE LANCET on the nursing arrangements of the London Hospital. You remark that at present you have only heard the evidence of the aggrieved nurses. I desire to state that an instance has lately come to my knowledge in which a probationer, with whom I am well acquainted, was summarily dismissed. From my knowledge of the character and capacity of this probationer I feel satisfied that her dismissal was not due to any adequate or proper reason. I am, Sirs, yours faithfully,

Tottenham, July 9th, 1890. E. HOOPER MAY, F.R.C.S.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Election to the College Council of Mr. Mitchell Banks.

THE news of Mr. Mitchell Banks' election to the Council of the College of Surgeons, and of his heading the poll by so decisive a majority, was received here with great pleasure by all his numerous professional and lay friends. Coming from Edinburgh twenty-two years ago an almost unknown man, Mr. Banks has won his way step by step to being senior surgeon to the Royal Infirmary, representative of the Victoria University upon the General Medical Council, and now member of the Council of the College of Surgeons. He enjoys a very large consulting practice, and the confidence of numerous patients as well as that of his professional brethren. Mr. Banks owes all this to his hard work and surgical abilities, for there never was a man who less courted popular favour or who spoke more plainly what he thought and felt, though in a courteous and gentlemanly manner. He continues to lecture on anatomy at the Liverpool University College and on clinical surgery at the Royal Infirmary, and is a great favourite with all the students.

The Opening of the new Royal Infirmary.

It has been announced that H.R.H. the Duke of Clarence and Avondale will open the new buildings of the Royal Infirmary in October next. A proposition has been made that the proceedings shall include a fancy ball to be held in the new infirmary, and the suggestion is worthy of consideration, fancy balls being very popular in Liverpool; this will be greatly enhanced by the charitable purpose which it is intended to aid, and by the presence of the Duke of Clarence and Avondale on so memorable an occasion. In 1749 the first infirmary was opened, in 1824 the second, and now in 1890 the third is nearly completed, and soon to be opened.

A Series of Accidents.

Early on Sunday morning a woman, while making some purchases in a shop in Mill-street, was shockingly burned owing to the explosion of a paraffin lamp in the shop, and was removed to the Royal Southern Hospital, where she lies in a serious state. In the afternoon of the same day a young man was removed to the Bootle Borough Hospital suffering from a very severe bullet wound of the abdomen, caused by the careless handling of a loaded revolver by an intimate friend of the injured man. On Saturday evening a man was knocked down by a tram-car horse and dragged for some little distance, sustaining, it is stated, a dislocation of the collar-bone, some serious contusions, and a very severe shock. The horse ambulance of the Northern Ambulance, on its way to the injured man, met with an accident, and was unable to proceed; but Mr. Melville, who accompanied it, went in a cab and had the patient removed on the police hand ambulance to the Northern Hospital. The hind axle of the ambulance suddenly snapped, and it is fortunate that no injured person was inside.

Attempted Murder by Shooting; Narrow Escape.

A powerful-looking man was committed for trial yesterday by the Wallasey magistrates for shooting twice at a married woman whom he had previously grossly insulted. The first bullet grazed her forehead, and tore off one of her earings; the second, fired somewhat later, struck her above the abdomen, crossed the body, and was deflected towards the left side. Dr. MacWhannell, senior house surgeon of the Birkenhead Borough Hospital, extracted the bullet, which, had it not fortunately struck a rib, would have entered the stomach

and in all probability have proved fatal. She is now out of danger, though the wound has not quite healed.

Fatal Case of Shooting: alleged Murder.

Since the above was written a third case of shooting, this time with a fatal result, has occurred, the victim being a well-known colliery proprietor living at Rainford, a village a few miles distant from Liverpool. He was shot while he was on his way to the Rainford Junction Station, about 9 A.M. on the 7th inst., the bullets taking effect in his right temple, right side of the back, left groin, and left little finger. He was attended at once by Dr. Murdoch of Rainford, and subsequently by Mr. Rushton Parker, but he died without having recovered consciousness shortly after nine the same evening. A man and his wife are in custody.

Alleged Murders by an Insane Mother.

Allusion was made in a previous letter to a triple murder of children by their mother, who also attempted her own life, which for some time was in the greatest danger. She had recovered sufficiently to attend in a room adjoining that where the adjourned inquest was held. The jury were very anxious to return a modified verdict in consequence of the state of her mind, which continues to be that of one suffering from melancholia. But the coroner, Mr. Brighouse, explained that the law only permitted this in the case of suicides, and that the only verdict they could return was that of "Wilful murder," leaving the prisoner's state of mind and all other questions to the assize jury.

Liverpool, July 8th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

EDINBURGH.

The Public Health Committee.

THIS Committee have recommended to the Town Council that £500 be spent in improving the laundry appliances at the City Hospital, mainly for disinfecting purposes. It was also intimated that during the month of June 20,187 lb. of unsound meat were seized. On this subject a discussion took place on a letter from butchers and meat salesmen, requesting that meat sent in for examination should be differentiated from meat which had been seized after being offered for sale. In both cases, it appears, the term "seizure" is in accordance with the Act. It was also reported that during the first half of the year there had been admitted into the City Hospital for Infectious Diseases 664 patients, and the death-rate had been 7·4 per cent.; 1 died from typhus, 8 from typhoid, 20 (out of 58 cases) from diphtheria, 9 from scarlatina, 13 from measles, 4 from whooping-cough, and 7 from erysipelas. During the half-year the death-rate of the city was 20·44 per 1000, while the average during the same months of the preceding five years had been 18·06.

City and District Water Trust.

The fortnightly return shows a decrease of 13,048,000 gallons since last report. The delivery during the fortnight was at the rate of 39·82 gallons per head per day on the estimated population.

The Medico-Chirurgical Society.

Various interesting cases and pathological specimens were shown at the last meeting. Amongst the former was a case of recovery after operation for ruptured vermiform appendix by Mr. Caird; and two nervous cases by Professor Greenfield, one a case of Thomsen's disease, affecting both upper and lower extremities, and the other, which he regarded as unique, and to which he provisionally gave the name of diffuse muscular sclerosis. Mr. Caird read a paper on the Treatment of Cold Abscess, in which he advocated scraping the pyogenic membrane off its wall by means of the finger-nail, an opening just sufficient to admit the finger being made into it. Dr. John Playfair read a paper on Croupous Pneumonia in Children, based upon about forty cases which had been under his care. He pointed out and discussed the symptoms, the part of the lung affected, the complications, and the duration of the illness.

The Royal Society of Edinburgh.

At the meeting of this Society on Monday the prizes which, as already intimated, were awarded to Professors Tait and Letts and Mr. Robert Kidston were presented. Professor Crum Brown made a communication on Synthesis by means of Electrolysis; and Dr. Stockman described experiments he had made along with Mr. Dott on the action of morphine and some of its derivatives, their general action being similar

The University Athletic Club.

The annual sports of this club were held on Saturday in the exhibition grounds. The weather was unfavourable, but there was a large gathering of spectators, and the day on the whole was regarded by the club as successful. As in former years, the students of medicine took a prominent part in the various events.

Health of the City.

The death-rate last week was 13 per 1000. Of the total deaths, 30 were due to chest diseases, 1 to measles, and 4 to whooping-cough. The intimations included 5 cases of typhoid, 7 of diphtheria, 12 of scarlatina, and 26 of measles. The death-rate at Leith for the week was at the rate of 17 per 1000.

Representatives to the International Medical Congress at Berlin.

The University is to be represented by Professors Sir Wm. Turner, T. R. Fraser, Simpson, Rutherford, and Greenfield.

Edinburgh, July 8th.

ABERDEEN.

Medical Jurisprudence and Public Health.

After the completion of the professional examinations in April last, the graduates sent to the University Court a protest against the compulsory inclusion of public health in the professional examination in medical jurisprudence. The protest was remitted to the Senatus, who reported to the Court and gave it as their opinion that public health should be included. The question came up for consideration at the meeting of the University Court held on Tuesday, the 1st inst. Dr. Angus Fraser moved: "That the Court finds that public health is not included in the list of subjects prescribed by the ordinances as those in which candidates for the degrees of medicine have to be examined, and that therefore it is not competent to include public health with medical jurisprudence without an alteration of the ordinances." This motion was seconded by the Rev. Mr. Smith, upon whose suggestion the motion was afterwards altered to the extent of adding: "The Court, while desirous of encouraging the study of public health in the University, is of opinion that," &c. After a long discussion this motion was put against one by Mr. Edmond, to the effect "that the Court is not prepared to determine that the examiners in medical jurisprudence have exceeded their powers in considering public health as a department of the subject in the examination for the medical degree, and reserves consideration of the new arrangements for teaching and examining in public health until the ordinances for the medical faculty are before the Court." This motion was carried by 7 votes to 2. Dr. Fraser dissented from the finding of the meeting.

The Lord Rectorship of the University.

Saturday's *Free Press* says: "In view of the approaching expiry of Mr. Goschen's term of office as Lord Rector of the University, a good deal of talk is current in student circles as to the person likely to be chosen as Mr. Goschen's successor. While nothing definite will be resolved upon until the commencement of the Arts session, the name of Dr. Struthers, late Professor of Anatomy in the University, is already freely spoken of in connexion with the vacancy."

The new University Club.

Aberdeen now possesses a University Club—a club "instituted for the association of gentlemen connected with the universities of the United Kingdom, or with foreign universities, to form a bond of union and create a feeling of fellowship amongst them, and to afford opportunities for their intellectual intercourse." The following persons are eligible for admission as ordinary members: (1) Graduates of any university; (2) persons who have attended two years at least at any university or universities in the United Kingdom or abroad; (3) professors and persons holding any honorary office in connexion with a university; (4) persons not possessing any of the above qualifications shall be eligible for admission in the proportion of one to every five members so qualified." Excellent rooms have been rented in 183A, Union-street, and the club

was formally opened on Thursday, the 3rd inst. There was a large attendance of members, and Professor Stewart, who has taken an active part in the formation of the club, was elected president, Professor Pine vice-president, and Mr. D. M. M. Milligan, advocate, was appointed secretary. Already 182 members have joined the club, and of these 147 are town members and 35 country members.

7th Division Volunteer Medical Staff Corps.

The 7th Division Volunteer Medical Staff Corps was inspected last week by Deputy Surgeon-General Irwin. The corps is now in the second year of its existence, is composed entirely of medical students, and is full strength. The inspecting officer, at the close of the inspection, addressed the officers and men. He said he was greatly pleased with all he had seen, and would make a favourable report to headquarters. Deputy Surgeon-General Irwin's term of office as Principal Medical Officer, North British District, now expires, and he expressed his regret that this was his last inspection of the corps. The officers present were Surgeon MacGregor (in command), Surgeons MacKenzie, Booth, and Riddell, and Quartermaster De Lessert. On Aug. 1st half the company, fifty officers and men, go to Aldershot for a week's training with the regulars.

Aberdeen, July 8th.

DUBLIN.

(FROM OUR OWN CORRESPONDENT.)

Poisoning by Mussels.

IN the recent cases of poisoning from sea-water mussels briefly referred to last week, it was shown that the mussels were obtained from a pond connected with the sea by a culvert, and which was contaminated with the sewage of about fifteen houses. The mussels have been analysed by Sir Charles Cameron, superintendent medical officer of health and city analyst for Dublin, and I am informed that his opinion is that mussels coming from a habitation impregnated with sewage develop a form of poison allied to strychnine. The poisonous action, according to Taylor, cannot be referred to putrefaction or disease, and the effect may vary in different cases. Our knowledge of the reason why sea-water mussels are sometimes dangerous when eaten is very incomplete, and little or nothing is known on the subject. Some have considered it to be due to some disease of the mussel, which produces the alkaloid, leucomaine, which has been isolated by Brieger from shell-fish, which was poisonous to animals, causing similar symptoms to those usually occurring in cases of mussel poisoning. The eruption resembling urticaria, which has not unfrequently been noticed in these cases, and which when present is invariably attended with considerable heat and itching, was, I understand, absent in the victims of the Seapoint tragedy.

Accident to Mr. Marshall Weir, J.P.

On Sunday last, while driving to attend a patient, his horse, a spirited animal, became restive, and Mr. Weir was thrown on his head, being rendered unconscious by the violence of the fall. He remained insensible for four hours, and was removed to his home on a stretcher, being attended by Dr. Cawden and Mr. Hawthorne. The unfortunate gentleman lost a considerable quantity of blood, and his recovery is considered doubtful.

Dishorning Cattle.

At Kells last week a prosecution was instituted, under order of the Attorney-General as a test case, for dishorning cattle. Evidence was given on the part of the prosecution by eminent authorities to the effect that the operation was a cruel procedure; but, on the other hand, evidence was tendered that the pain inflicted was only momentary, and that ultimately cattle thus treated improved greatly in condition. Ultimately the prosecution was dismissed on its merits, in consequence of the serious conflict of authority which was shown to exist on the subject.

Death from Hydrophobia.

A lad named Graham, aged eighteen, died last Saturday at Clontarf, co. Dublin, after thirty-six hours' illness, from hydrophobia. The deceased had been bitten some three months since by a collie dog.

Richmond Lunatic Asylum.

An inquest was held last week on the body of a man named Connor, an inmate of the asylum, who died there on the 1st inst. A post-mortem examination showed that several ribs were fractured, but no explanation was given as to how the injuries occurred. One of the visiting physicians pointed out that the bones of patients suffering from general paralysis were particularly liable to fracture. The jury found that the deceased met his death from injuries to the ribs; that these injuries were caused by violence, of which they had no evidence as to how it was inflicted.

Royal University of Ireland.

The summer examinations are now going on, and will terminate next week. For Matriculation, 710 candidates entered, as against 711 last year; and for the First Medical Examination there were 75, as compared with 82.

Mr. R. H. Woods obtained the Surgical Travelling Prize at the midsummer examinations in Dublin University.

Dublin, July 8th.

METROPOLITAN HOSPITAL SUNDAY FUND, 1890.

WE publish below further returns of the sums above £20 collected at various places of public worship on Sunday, June 8th, in aid of the Metropolitan Hospital Fund. Up to this date the sum collected amounts to £40,100.

	£	s.	d.
St. Luke's, Paddington	68	5	3
Lambeth Parish Church	27	12	1
Christ Church, Wanstead	33	12	9
St. Pancras Parish Church	61	12	2
Holy Trinity and St. James's, Lyonsdown	27	5	6
Finsbury-park Congregational Church	24	18	10
Chapel Royal, St. James's Palace	42	5	0
St. George's, Bloomsbury	37	8	5
St. Michael's, Notting-hill	40	5	6
Stoke Newington, Friends' Meeting	27	16	5
The Oratory, Brompton	41	10	6
Trinity Presbyterian Church, Notting-hill	40	7	3
Emmanuel, West Dulwich (part)	27	10	4
Waltham Abbey Parish Church	38	17	0
Christ Church and St. Barnabas, Finchley (part)	22	18	5
North Finchley Congregational Church	22	6	6
New Jerusalem Church, Kensington	25	8	5
Streatham-hill Congregational Church	39	9	1
St George's Presbyterian Church, Brondesbury	24	3	2
St. Alphage's, Greenwich	29	18	7
Christ Church, Chelsea	37	14	8
St. James's, Norlands	61	1	6
St Giles's, Cripplegate	90	1	0
St. Peter's, Eltham-road	39	10	2
St. Mary's Parish Church, Lewisham	40	5	0
St. Andrew's, Westminster	42	0	0
St. Paul's, Walworth	36	8	2
Emmanuel Church, Forest Gate	26	1	3
St. Stephen's, Westminster	47	12	11
Upton Baptist Chapel, Lambeth	22	2	10
Archway-road Wesleyan Chapel	22	15	0
All Saints', Finchley-road	82	12	0
F. G. D.	50	0	0
Christ Church, Mayfair	126	3	0
Brompton Parish Church	321	17	3
St. James's Hall Wesleyan Mission	80	4	5
George Palmer, Esq.	105	0	0
Great Synagogue	239	8	6
New West-end Synagogue	80	16	0
Central Synagogue	77	4	8
Bayswater Synagogue	69	12	8
Dalston Synagogue	37	3	0
St. John's-wood Synagogue	30	14	2
North London Synagogue	29	13	9

THE SERVICES.

ARMY MEDICAL STAFF.—Brigade Surgeon A. A. Gore has assumed duty as Principal Medical Officer, Army of Occupation, Egypt, during the absence on leave of Deputy Surgeon-General Jameson.

ADMIRALTY.—In accordance with the provisions of Her Majesty's Orders in Council of Jan. 7th, 1864, and Feb. 22nd, 1870, Staff Surgeon Charles William Magrane has been placed on the retired list (dated June 11th, 1890).

The following appointments have been made:—Staff Surgeons: William R. White, M.B., to the *Collingwood*, and Horace E. F. Cross to the *Orontes* (both dated July 5th, 1890), and Charles W. Buchanan-Hamilton to the *Ganges* (dated July 12th, 1890); Surgeons: F. W. Parker to the *Excellent* (dated July 5th, 1890), and Robert F. Bowie to the *Wye* (dated July 12th, 1890); Fleet Surgeon Thomas L. Horner to the *Hibernia* (dated July 7th, 1890).

VOLUNTEER CORPS.—*Rifle:* 3rd Volunteer Battalion, the

Queen's (Royal West Surrey Regiment): Surgeon K. W. Millican resigns his commission (dated July 5th, 1890).—3rd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry): Acting Surgeon F. St. J. Kemm to be Surgeon (dated July 5th, 1890).—1st Volunteer Battalion, the Cheshire Regiment: Acting Surgeon J. Wilkinson, M.B., resigns his appointment (dated July 5th, 1890).—3rd Volunteer Battalion, the Cheshire Regiment: Surgeon and Surgeon-Major (ranking as Major) T. Moreton resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated July 5th, 1890).—1st (Brecknockshire) Volunteer Battalion, the South Wales Borderers: Surgeon P. E. Hill to be Surgeon-Major, ranking as Major (dated July 5th, 1890).

VOLUNTEER MEDICAL STAFF CORPS.—The Norwich Division: Acting Surgeon Walter Scott Warlters to be Surgeon (dated July 5th, 1890).

Obituary.

SIR EDWIN CHADWICK, K.C.B.

THE death of Sir Edwin Chadwick at the ripe age of ninety years and six months takes from us one of the most remarkable and conspicuous figures that has moved amongst us through almost three generations. He was born at Longsight, near Manchester, on Jan. 24th, 1800, the son of Mr. James Chadwick, a man of remarkable character and ability, who, himself, lived to a very advanced age. When Edwin Chadwick became old enough to enter a profession—between fourteen and fifteen, according to the custom of the day,—he selected the law as his profession and entered an attorney's office as a pupil. The routine of the office becoming distasteful, he enrolled himself as a student of the Inner Temple, working meanwhile at literature in order "to keep himself going." At this labour he toiled on vigorously, his fields of work being the *Morning Herald* and the *London Review*, all this anonymous work, and much of it of the character of reports, in the same manner as Dickens afterwards laboured. In 1828 he entered more boldly into the field of letters. He sent a paper to the young and audacious *Westminster Review* on the subject of "Life Assurance." This being accepted, he followed it up by two essays in the *London Review*, one on "Preventive Police" the other on "Public Charities in France." These essays formed the basis of his future distinguished career.

He was called to the Bar on Nov. 26th, 1830. It was a question whether he should or should not commence practice at the Bar; the temptations were many, and he had rather a liking for the occupation. Happily, perhaps, for the world at large his destiny ran another way. Jeremy Bentham, while engaged in his last work, asked Chadwick to help him to finish it. The task was accepted, and for a time he lived with Bentham, and was with him at his death in 1832, but an offer made to him by the philosopher to receive an independency, and become a permanent exponent of the Benthamite philosophy, was declined with much respect and gratitude. He received, however, a legacy from the master, and long ranked as a leader of the Benthamite school. Still in doubt whether or not to labour at the Bar, his thoughts were diverted into another channel. For some reason, which he has often told the writer of this memoir he never understood, the sanitary idea became dominant in his mind, and he became impressed with the conviction that if sanitation were carried out in its completeness, disease, which was the cause of all death before the appointed time, would itself die. His design for a new Poor-law system was one of the grandest. It included the reduction of the poorhouses scattered at large throughout the country from some thousands to about six hundred centres, or unions, in each of which it proposed to place a series of institutions that would constitute a perfect organisation for the poor of every age and every condition.

After having worked about eight years at the Poor-law system, Mr. Chadwick, now Secretary of the Poor-law Board, was asked to turn his mind to sanitary administration. He immedately persuaded his Board to institute a medical commission, in which Dr. Neil Arnott, Dr. Kay (afterwards Sir Kay) Shuttleworth, and Dr. Southwood Smith were included. A new Act for the Registration of Births, Marriages, and Deaths was brought into working form, and was about to be passed, in which Mr. Chadwick saw a new opening for sanitary inquiry, and succeeded in obtaining the registration of the cause of death. His evidence on intemperance and its fatal effects was so effective and pronounced that the temperance party have ranked him amongst the earliest reformers of their school. In his position as a constabulary commissioner, to which he was also elected in 1838, he moved towards crime itself as if it were a disease which the new police were to observe as well as suppress. "Get at the removable antecedents of crime, and crime will be vanquished," that was the principle at which he directed his endeavours. With like spirit he proceeded in all his inquiries, in those relating to sanitary as well as social questions; thus in the matter of intramural interments and the formation of public cemeteries, in which the founder of THE LANCET and Mr. G. B. Walker took so active a part, Mr. Chadwick was incessant in his exertions. The crowning point of the career of Edwin Chadwick was, however, the publication of his magnificent report on the "Sanitary Condition of the Labouring Classes of Great Britain." This book was one of the most original in English scientific literature, and its practical bearing one of the most important in the field of preventive science. He was also a commissioner of the first Board of Health, which office he retained until 1854, when the Board virtually merged into the Local Government Board with Poor-law administration. Here his official career ceased. He was created a C.B. on the suggestion of Prince Albert, and, receiving a comparatively small pension, he retired into private life, moving first to Richmond and finally, in 1869, to Park Cottage, East Sheen, where he lived to the end of his life. On March 2nd, 1889, a complimentary dinner was given to him by the Association of Public Sanitary Inspectors of Great Britain, of which he was President, and other friends, to congratulate him on entering his ninetieth year, and on the same day Her Majesty conferred on him the title of K.C.B. In 1839 Mr. Chadwick was married to Miss Rachel Dawson Kennedy, fifth daughter of John Kennedy, Esq., of Ardwick Hall, Manchester, by whom he had two children (Mr. Osbert Chadwick, C.M.G., well known for his engineering services in Malta; and Miss Marian Chadwick), both of whom survive him.

In the beginning of the present year Sir Edwin Chadwick suffered, as our readers will recall, from a severe attack of bronchitis, which reduced him to such a condition of prostration and somnolency that Dr. Marshall of Barnes and Dr. B. W. Richardson, who saw him in consultation, almost despaired of his recovery. The manner in which he rallied was quite extraordinary. On Thursday, June 26th, he drove to London and visited the Athenæum Club; but a day or two after felt prostrated, took to his bed, and again came under the able care of Dr. Marshall. He was also seen by his relative, Dr. Gordon Hardie, and several times by his old friend Dr. Richardson. At first the hope was repeated that he would rally, but it was not realised; he gradually sank into sleep and died, by the most perfect euthanasia, at 1 o'clock on Saturday, July 5th, Drs. Marshall and Richardson remaining in attendance until medical aid ceased to be of any avail.

The remains of the great sanitary reformer were interred in the most simple manner in the Mortlake Cemetery on Wednesday last, July 9th, at 1 P.M.; and as the earth closes on them we close our short record, proud of having the opportunity of paying a poor but sincere tribute to the memory of one who, though not strictly belonging to medicine, has contributed more to the art of prevention than any man who has laboured outside the special sphere of medicine, in one of her most useful and noblest departments for the health of mankind.

ALFRED GEORGE BUCKLAND, M.D.

AT Nukualofa, one of the principal settlements in the group of the Friendly Islands, there died on March 30th a man who at one time appeared destined to take a very distinguished position in the profession of medicine. Alfred Buckland was distinctly a genius and a man possessed not only of many and brilliant accomplishments, but also of irrepressible vigour and enthusiasm. He was born in New Zealand on March 5th, 1850, and was educated at St. John's College, Auckland. After completing his arts education he came to England, and entered the London Hospital in

1870. He was appointed resident accoucheur in 1875, and house surgeon to Mr. Hutchinson in 1876. Previously to holding these offices he had graduated at Aberdeen and had become a Member of the Royal College of Surgeons. After his period of duty in the hospital had expired he was appointed a demonstrator of anatomy at the London Hospital Medical College, and the reputation he earned in this capacity will long survive him. He was an accomplished anatomist and an exceptionally able teacher. He managed to infuse into the members of his class some of that energy and enthusiasm which he himself so conspicuously displayed. His popularity with the students was unbounded. His good temper, his patience, his extreme good-heartedness, his wonderful spirits, and his genial and sturdy character could do no other than impress all those with whom he was associated. It may safely be said of Buckland that he never made an enemy, and few men could boast a larger number of sincere and loyal friends. Nothing could exceed the kindliness of his heart, and the sterling, honest manliness of the man; his energy was infectious, his determination and power were ever discreetly employed, and he possessed very distinctly those qualities which make a leader of men. Dr. Buckland's position at the time he held the office of demonstrator was such as to indicate a very successful future. He had already proved himself to be a first-rate surgeon, and a man of much originality and resource, and there was little for him to do but to accept a career which appeared assured. He had no taste, however, for London life and the somewhat tedious existence of a hospital surgeon. He abhorred monotony, and the mere prospect of dulness, and the life that his friends had conceived for him, was not suited to his restless and energetic spirit. He resigned his appointment, and, after travelling over a large part of Europe, determined to leave England for good. Ample private means enabled him to follow the bent of his own inclinations, and also to satisfy his remarkable passion for sport. In 1881 he reached Tonga, and there he resolved to settle, and there he died. His life on the island was spent in developing his estate, in cultivating his garden, in training his pigeons, and in attending to the ills of the natives and the few European residents. His loss in the island has been very keenly felt. Not only was he the sole medical man in the settlement, but he had endeared himself to all those around him by his hospitality, his kindness, and unselfishness, as well as by his skill as a surgeon and physician. Dr. Buckland died of dysentery after a short illness; and it is sad to think that a man who had been so unsparing in his attention to others should himself have lacked all medical aid in his last moments. Dr. Buckland was unmarried.

J. C. WESSELS, M.B., B.C.

ANOTHER has fallen a victim to pneumonia, so prevalent in Pretoria, Transvaal, in the person of Dr. Wersel, third son of the late Mr. J. C. Wessels of Cape Town. Dr. Wessels died of double pneumonia at Pretoria on June 13th, and was in his twenty-sixth year. He had been resident in this town rather less than six months, having gone there to enter into partnership with an old resident, Dr. Davidson, and having come directly for this purpose from the London Hospital, where he held the post of receiving officer. He was educated at the South African College, Cape Town. In 1882 he matriculated with Honours in the Cape University, and in 1885 his name appeared at the head of the list of candidates in Honours for the B.A. degree of the same University, obtaining thereby the Jamieson Scholarship of £200 per annum. Leaving the Cape, he entered King's College, Cambridge, and obtained in 1887 Honours in the Natural Science Tripos. In 1889 he took his M.B. and B.C. degrees at Cambridge, and became receiving officer at the London Hospital. Throughout his career, whether at Cambridge or London, he was universally popular and a general favourite. The announcement of his early death will come as a painful surprise and be received with the deepest regret by his fellow-students of Cambridge and London, as well as by the authorities under whom he was from time to time. It is sad to note that, having nursed his brother through an attack of pneumonia, he should immediately himself fall a victim to the same disease, and that a career giving great promise for the future should be cut short so early and so suddenly. Our deepest sympathy is with his widowed mother.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary Comitia of the Royal College of Physicians was held on Wednesday at 5 P.M., Sir Andrew Clark, President, in the chair; but the attendance was comparatively a small one. There were only two questions on the agenda: 1. "To receive a communication from a select committee of the House of Lords appointed to inquire into metropolitan hospitals, asking if the College wished to send any witnesses to give evidence before the Commission." It was intimated that any Fellow could give evidence, but that the College of Physicians declined to send any official representative. 2. "To consider a report of the two Colleges on a further revision of the Scheme for the Reconstitution of the University of London." This was declared "Secreta Collegii," and, after a prolonged debate, the report was received and adopted, it being recommended that the revised scheme of the Senate "be only accepted by the Royal College of Physicians with certain modifications herein set forth and hereafter to be agreed to." The Comitia then adjourned.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

ELECTION OF PRESIDENT.

AT a quarterly meeting of the Council of the College held on Thursday, the 10th inst., Messrs. Mitchell, Banks, Beck, and Langton were introduced by the President as the new members of the Council, and after the usual declaration took their seats.

The minutes of the last Council were read and confirmed.

It was agreed, as recommended by the Museum Committee, that the Museum be closed during the month of August as well as during September, in order that the alterations and repairs already sanctioned by the Council may be completed by the 1st of October next.

The report dated the 20th of June, 1890, from the Laboratories' Committee was read and adopted.

The report of the Committee of Delegates of the two Colleges on the Scheme for the Reconstitution of the University of London was referred back to them for further consideration.

A letter of the 23rd ult. was read from Dr. Liveing reporting that the Royal College of Physicians had determined to form a deputation, in conjunction with other licensing bodies, to wait on the Secretary of State for War, and lay before him the grievances and claims of the Army Medical Department, and inquiring whether the Council would be pleased to follow up the action they had already taken by joining in a representative deputation. The President stated that, in the absence of any meeting of the Council, he had nominated Mr. Bryant, Vice-President, Sir William MacCormac, and Mr. Macnamara, together with himself, as the representatives of this College to take part in the deputation. The nominations of the President were approved.

A letter of the 7th inst. from the Registrar of the General Medical Council was read, enclosing, by direction of the President, a copy of the resolutions in regard to professional education and examination, passed by the General Medical Council during its recent session, and referred to the Committee of Management for consideration and report.

Mr. A. W. Barrett was appointed a member of the Dental Section of the Board of Examiners in Dental Surgery.

A letter was read suggesting that the College should take action in opposing certain provisions of the proposed Bill for the Registration of Midwives now under the consideration of a Select Committee of the House of Commons, and was referred to the President and Vice-Presidents for their reports.

The report of the Committee on the Nomination of Professors and Lecturers was received and entered on the minutes. These are as follows:—Professors of Surgery and Pathology: Messrs. W. Anderson, J. Berry, and R. Harrison. Professors of Comparative Anatomy and Physiology:

Messrs. W. W. Cheyne, B. T. Lowne, C. B. Plowright, and C. Stewart. Lecturer on Anatomy and Physiology (Arris and Gale): Dr. J. R. Bradford. Erasmus Wilson Lecturer: Mr. J. B. Sutton.

Mr. F. S. Eve was re-elected Pathological Curator.

The Council proceeded to the election of President for the coming year, in the place of Mr. Jonathan Hutchinson, who retires from the office, and Mr. Thomas Bryant was elected; Mr. T. Smith and Sir W. Mac Cormac being elected Vice-Presidents.

The next meeting of the Council will be held on July 28th.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen have passed the Second Examination of the Board in the subjects indicated:—

Anatomy and Physiology.—Edgar Reid, Gerardo Jimenez, Peter E. Bearblock, and David M. Beddoe, students of Guy's Hospital; Harry H. Phillips and George H. J. Hooper, of Charing-cross Hospital; Arthur D. Howard and Christopher L. Jones, of London Hospital; Edwin G. E. Arnold and Samuel H. R. Davies, of St. Thomas's Hospital; Robert A. E. Bacon and Ernest G. G. Little, of St. George's Hospital; Eldred A. Addison, of Middlesex Hospital; Cyril R. H. Crawford, of St. Bartholomew's Hospital; H. Bankes-Price, of Middlesex Hospital; Harry Cooper and David A. Chaning-Pearce, of Guy's Hospital; Henry S. Elworthy, George H. Forman, Ernest C. Fincham, and John G. Faber, of St. Bartholomew's Hospital; George C. Jeaffreson, of University College; Francis W. J. Coaker, of London Hospital; Elijah Brown, of Charing-cross Hospital; Harry C. M. Brett, of King's College; Francis R. Greg, of St. George's Hospital; Arnold S. Ferguson, of Middlesex Hospital; Francis H. Edwards and Herbert A. Hinds, of Guy's Hospital; Henry W. Morley and Sydney R. Wells, of St. George's Hospital; Reginald W. Fisher, of St. Bartholomew's Hospital; Chas. W. Gilbert and Alfred O. Howse, of London Hospital; Alfred B. Gittins, of London Hospital and Glasgow; Frederick J. Fielder, of King's College; Francis E. Fernie, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Percy Lambert, Bernard Ley, Joseph O. March, and Richard O'Leary, students of St. Bartholomew's Hospital; Fredk. G. M. Philps, Philip Hacquoil, and Ralph G. James, of Guy's Hospital; Harold Whichells and Henry R. Wadd, of St. Thomas's Hospital; Leopold G. Hill, of London Hospital; Herbert W. Lyle, of King's College; Edward S. Worrall, of University College; Patrick F. Gleeson, of Melbourne University.

Anatomy only.—Arthur P. Allan, of Guy's Hospital; Henry R. S. Clarke, of University College; Henry N. N. Dodd, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; John H. Bettington and Walter C. Lawton, of Guy's Hospital; Frederick C. Sutherland, Ernest W. Cross, John A. T. White, and Claude A. Worth, of St. Bartholomew's Hospital; James Thomas, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Henry J. Clark and Herbert J. Frederick, of St. Thomas's Hospital; Frederick A. M. Flegg, of St. Thomas's Hospital and Mr. Cooke's School of Anatomy and Physiology; Ellis Clowes, of Charing-cross Hospital; Percy S. Eves and Colvin T. Van Geyzel, of University College; Edward B. Barber and William A. Green, of London Hospital; William H. Gossage, of Westminster Hospital; Clement Bensley, of St. Mary's Hospital; Jas. G. B. Coleman, Alex. B. Creak, and Joseph W. Culmer, of Guy's Hospital; Arthur V. Evans, of St. George's Hospital; John S. Hudson, of St. Thomas's Hospital; Ernest W. Cooke, of London Hospital; Basil E. Church, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Leonard J. Godson, Arthur A. Humphrys, and Philip T. Jones, of St. Bartholomew's Hospital; Philip E. Snoad, of St. George's Hospital; Ernest Hunt and Richard Henderson, of Guy's Hospital; Frederick H. Dayus, of St. Mary's Hospital; Alfred E. Shepherd, of Middlesex Hospital; Lionel V. Tebbs, of St. Thomas's Hospital; Wm. E. Kirby and Herbert S. Taylor, of University College; Horace R. Pring and Malcolm White, of St. Thomas's Hospital; Thomas F. Long and Hugh T. Prince, of Middlesex Hospital; Ernest S. Tuck and Ernest E. S. Silver, of Guy's Hospital.

Physiology only.—Richard Bebb, of London Hospital; Arthur G. Ewbank and Edwd. S. Humphry, of St. Bartholomew's Hospital; A. A. Macfarlane, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; John H. Compton, Oscar Worthington, and A. G. Buchanan, of Guy's Hospital; Robert F. Symons, of St. Thomas's Hospital; Robt. S. Berry, of St. George's Hospital; Thomas Streatfeild, Hugh C. Roberts, and Walter W. Hodging, of University College; Baron Brooke, of King's College; William D. Akers, of St. Mary's Hospital; Guilford Davidson, of St. Thomas's Hospital; Edwd. J. Eedle, of Charing-cross Hospital; Arthur E. Couzens, of St. Mary's Hospital; William H. Fry and London P. Gordon, of Charing-cross Hospital; Alfred Hewetson, of St. Mary's Hospital; Edwin S. Hoare, of Guy's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen having passed the necessary examinations, and having conformed to the by-laws and regulations, were at the quarterly ordinary meeting of the Council on the 10th inst. admitted Members of the College:

Bennett, Francis Dillon, L.S.A., Lodge-road, Regent's-park.
Trevithick, Edgar Geo., M.B. Cantab., Lambeth Palace-road.
Yeoman, Stanley, M.B. Cantab., Osmotherley, Northallerton.

The following Member, having previously passed the necessary examinations, and having now attained the legal age (twenty-five years), was at the same meeting admitted a Fellow of the College:—

Parry, Albert Alex., M.B. Melbourne, Pine Grove, Sydney-rd., Royal Park, Melbourne; diploma of Member dated June 14th, 1888.

MEDICAL MAGISTRATE.—Mr. James Aymer, M.B., C.M.Aberd., has been placed on the Commission of the Peace for the County of Kincardine.

THE RIVERS MERSEY AND IRWELL.—Last week it was decided, at a conference held at Manchester, to form a conservancy board for the watersheds of these rivers, with the view to their purification.

ROYAL COMMISSION ON VACCINATION.—The Commission continued their sittings on Wednesday, the 9th inst., when Professor Crookshank gave evidence. He will continue his evidence at the next meeting.

LONDON AND NORTH-WESTERN RAILWAY COMPANY.—We understand that Mr. Page has resigned the appointment which he has held for the past seventeen years of surgeon to this company.

SEIZURE OF FISH.—During the month of June the officers of the Fishmongers' Company seized 54 tons 11 cwt. of fish unfit for human food at Billingsgate Market. At Shadwell Market, out of 1244 tons received, 1 ton 3 cwt. were seized.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the Directors of this fund, held on the 8th inst., T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £60 was distributed among the several applicants.

EARLSWOOD ASYLUM.—The annual *fête* of this asylum was held on Tuesday, when many of its supporters availed themselves of the opportunity to see the actual working of the institution, which provides for some 600 patients. The band of the 14th Hussars and various amusements were enjoyed alike by visitors and patients.

SEAMEN AFLOAT AND ASHORE.—Deputy Inspector-General of Hospitals and Fleets W. H. Adam, R.N., has accepted the office of Assistant Association Secretary of the Missions to Seamen for the midland counties, for the provision of chaplains and readers for the shipping, fishing vessels, and barges, at home and abroad, and for their crews when ashore. His headquarters will be at Birmingham.

TESTIMONIAL.—On the occasion of the approaching marriage of Dr. Walker of Budleigh-Salterton, Devonshire, his patients and friends deemed it a favourable opportunity for showing the estimation in which he was held by them by presenting him with the following testimonial on the afternoon of the 7th inst.:—A silver tea-kettle, a pedestal lamp, and a drawing-room clock, each article being inscribed: "Presented on his marriage to Robert Walker, Esq., M.D., by his patients and friends. July, 1890." These were accompanied by a copy of Stanley's last work, and a beautifully illuminated album, containing the names of the donors, 250 in number.

UNIVERSITY COLLEGE PRIZE DISTRIBUTION.—On July 4th the prizes and certificates gained by the successful students were distributed by Mr. Leonard Courtney in the presence of a large company. Professor Ray Lankester presented the report, which stated that the past year had been most successful and prosperous. Referring to the great success of former students at Cambridge, he mentioned that Miss Fawcett, this year "above the senior wrangler," had been a former student at the College. The Council had decided to devote the Government grant of £1700 to the reduction of fees for various curricula, the result of which he hoped would be that the students would take complete and systematic courses of instruction rather than single classes. Mr. Courtney, addressing the students after distributing the prizes, remarked that this was a day which might be described as one in honour of women. He found women taking prizes everywhere, in open competition with men. He did not agree with those who declaimed against the adjudication of prizes, but there was admittedly a danger against which examiners could very little guard, and that was that the faculties might be overworked in early life, and so early success might be followed by after failure. Professor Erichsen presided.

EPSOM COLLEGE.—The annual scholarships have been awarded as follows:—Senior Scholarships: A. C. Knight, H. R. Mayo. Junior Scholarships: E. Davies, H. A. T. Fairbank. Entrance Scholarships (under fourteen) of £30, to C. B. W. Berry, from St. George's College, Wimbledon, and R. Bryett Turner, from the Rev. A. Newland's, Southampton; of £20, to N. B. Vines, from the Rev. R. B. Matson's, Milford-on-Sea, and J. Pritchard.

NEW COTTAGE HOSPITAL AT EDINGTON.—The foundation stone of a new cottage hospital for Edington, Bridgwater, to be erected in memory of the late Captain J. A. Lownes Luttrell, was laid on Thursday, July 3rd, by Miss Margaret Luttrell, daughter of Mrs. Luttrell, at whose expense the hospital is to be provided. It is pleasantly situated, will be provided with two wards, and will be furnished with bath-rooms &c., while special attention is being given to drainage and ventilation.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—At a meeting of the committee of management, held at the hospital on July 5th, the half-yearly address and general statement of the chairman, Dr. Robertson, was, in his absence through illness, read by Mr. R. R. Duke. During the half-year, 1042 in-patients were admitted, and 83 out-patients received attention. Of the 1042 in-patients, over 900 were suffering from rheumatism or gout. While the annual subscriptions had increased, the casual subscriptions had somewhat fallen off.

MEDICAL NOTES IN PARLIAMENT.

ON Friday, July 4th, in the House of Lords, the following Bills, among others, received the Royal assent: Suck River Drainage (Provision of Funds), and Contagious Diseases (Animals) (Pleuro-pneumonia).

Immigration of Aliens.

Earl Dunraven moved for a return of the number of vessels which had arrived in this country from Hamburg during the past six months, and of the steps generally taken in regard to the latter.—The Earl of Meath hoped something would be done to stop the immigration of foreign paupers into this country, as it tended to increase the suffering of the working classes, owing to the competition they had to cope with from the immigration of about 30,000 annually. The effect of the example of the life of these foreigners was to drag down our working people physically and morally.—In reply, Lord Balfour of Burleigh acknowledged the great importance of the subject, but great difficulties would arise if any attempt were made to impose disabilities on people landing on our shores. The reports mentioned by Lord Dunraven would not be of any great service. No information which the Board of Trade had received would lead to the belief that the number of aliens arriving in this country was so large as the Earl of Meath had stated. He thought it would be better to wait until the immigration and emigration statistics of the present year were published.—Lord Dunraven said that Mr. Lindsay, of the Custom House, estimated the annual number of aliens arriving in this country at 100,000.—Lord Balfour, again replying, said that in 1888 the number who arrived at the ports of London and Hull was over 70,000, and in 1889 over 50,000.—The motion was withdrawn.

Infectious Disease Bill.

On Thursday, July 10th, this Bill passed through Committee.

Adulterated Butter.

In the House of Commons, on Thursday, Mr. O. V. Morgan asked why the duty of detecting adulterated butter was neglected by the Customs and Inland Revenue officers and left to private individuals.—Mr. Jackson, in reply, stated that the Act of 1887 contemplated action being taken by local authorities, and the Commissioners of Inland Revenue were quite ready to give such authorities any aid that they could afford.

Bills advanced.

The following Bills, having passed through committee, were read a third time—namely, the Pharmacy Act (Ireland) (1875) Amendment Bill, the Pauper Lunatic Asylums (Ireland) (Officers' Superannuation) Bill, the Metropolis Management and Buildings Act Amendment Bill, the Open Spaces Bill, and the Working Classes' Dwellings Bill.

Contagious Diseases (Animals) Act.

On Friday, July 4th, Mr. Chaplin, in reply to a question of Mr. Barclay, said that a complete revise of the report of the Agricultural Department under the Contagious Diseases (Animals) Act had been received from the printers, and he expected it to be issued very shortly.

Alleged Death from Starvation.

On Tuesday, July 8th, in answer to Mr. Graham, Mr. Ritchie said that he had received no information up to the present as to the death from starvation in a common lodging-house in High-street, Woolwich, but as soon as he received information on that case, and also in the case of Elizabeth Barrett, he would consider whether it was necessary to communicate with the guardians on the subject.

THE SELECT COMMITTEE ON METROPOLITAN HOSPITALS.

On Monday, July 7th, this Committee resumed its inquiry, when Mr. D. Q. Roberts, secretary to the London Hospital, continued his evidence. He said that on Sept. 17th, 1889, a new standing order was made, which provided that no probationer could be dismissed without appeal to the House Committee. The witness proceeded to read extracts from the Charter and by-laws, by which the House Committee was authorised to make new standing orders, and for the appointment of the various officers and the duties to be performed by them. With regard to the food, witness said this had always been a subject of anxious care to the House Committee. Reverting to the treatment of nurses in the sick room, a letter was read from the mother of a probationer, who stated that the treatment received by her daughter during illness was everything that could be desired. Witness handed in a letter which the matron had received signed by 146 nurses at the London Hospital, expressing sympathy with her, and condemning the evidence given by certain witnesses as to her management.

In answer to a question from Lord Monkswell, witness said it was distinctly not the case that the quarterly meetings of the governors were a farce, as stated by a previous witness.

The next witness was Miss Lückes, matron of the London Hospital during the past ten years. After detailing her duties, she said that it was not the case that nurses were kept uninformed of changes made in the standing orders. Notifications of all changes were placed on the notice board, and such notifications were also read to the nurses at meal times. Complaints received by her were reported to the house governor. Very few complaints were made. Witness had reported complaints with regard to food to the House Committee, who might be weary of complaints but were never impatient. She had sometimes been told that she pandered too much to the whims of the nurses. For a long time she went round the hospital every day for the purpose of inquiring into the complaints, and only ceased to do so when complaints were no longer made. She considered the nursing staff of the hospital quite sufficient for the work. There was no foundation for the statement that unqualified nurses were ever put in sole charge of serious cases. Upon receiving several successive complaints about a probationer, her custom was to suspend her and report to the House Committee. It was not true that a nurse had been kept on duty while she was ill, and it would be quite impossible for such a case not to reach her. In the case of Miss Page, the witness said that the nurse certainly looked ill, but had begged the sister not to report her. Though she objected to the manner in which Nurse Page had gone to consult a physician not connected with the hospital, her dismissal took place purely on the ground of inefficiency. She had never been placed in entire charge of a tracheotomy case. She might have been left alone with the case referred to for a short time, but always under the supervision of some responsible person. More responsibility might have been imposed on Miss Page than was justified by her attainments as a nurse, but this was explained by the fact that she had brought certificates to show that she had had three years' experience as a nurse at Highgate previously to joining the London Hospital. The witness's opinion was that a year was generally sufficient to qualify as a nurse any person who was really fitted for the work, and this explained why probationers were sometimes sent out to nurse private patients. The witness was next examined as to the evidence of Miss Homersham, and denied its accuracy. She was quite certain that Miss Homersham never told her of the insulting language she had ascribed to a house physician in her evidence. Had such a complaint been made she would have taken immediate steps, and, under such circumstances, she would protect the nurses by every means in her power.

On Thursday, Miss Lückes resumed her evidence. Referring to the statement made by Miss Homersham in reference to the overcrowding of the wards, she had absolutely no knowledge of such occurrences or of beds having been removed to other wards before the physicians' visits. She denied that probationers ever had full charge of serious cases. A special nurse acted under the staff nurse or sister, who was responsible. Perhaps once a month a probationer, acting as a special nurse, was left alone with a serious case in the absence of the staff nurse, but was not held to be responsible. She was simply there to watch the case. When she reported complaints to the house committee the food supplied to nurses gradually improved, and since 1886 had been all that could be desired. There was no difference in the quality of the food supplied to the nursing staff, but the sisters had a larger number of courses. The linen supplied to patients was changed frequently, as far as she knew, and the sisters' books relating to it were examined once a year. It was never necessary for the nurses to commence washing patients at 4 o'clock in the morning on account of the insufficiency of the staff. Probationers were never sent out to private patients until they were efficient. They were usually sent out towards the end of their second year, but she could not say that anyone had been sent out at an earlier period of the training. She would consider it a breach of confidence to send out inefficient nurses to the public. These probationers were sometimes given a higher position in the hospital, but they were still regarded as probationers, so that they might have the advantages of further experience.

In reply to Lord Kimberley she drew a distinction between training and experience. The sanitary arrangements of the London Hospital were defective, and the drains had lately given great trouble. In reply to Lord Cathcart witness said the average cost of supplying food to each probationer was 8*s*, 11*d*. per week, but she had no pecuniary interest whatever in the matter. The house governor, under the house committee, was responsible for this item. The witness then proceeded to describe the duties of nurses, other than those of nursing. They had a good deal of rough work, but no scrubbing or carrying of heavy weights. Night nurses cleaned their lamps at the bedside of the patients, and so lost no time; but she did not think that patients suffered any inconvenience in consequence. Probationers did not complain of these menial duties occupying time that should be employed in learning the duties of a nurse, and she did not think patients would be better attended if these duties were relegated to servants. The staff, consisting of 218 nurses, was quite sufficient for the work of the hospital. The health of the nurses was considered good. She was not aware of any fatal cases in the hospital owing to mistakes on the part of nurses; but serious mistakes had often occurred. The witness admitted that it was quite true that one nurse had been sent out to work whilst suffering from scarlatina—a fact which was much regretted by all connected with the hospital. In October, 1888, there had been an outbreak of scarlet fever among the nurses, the source of which could not be discovered. For those nurses who were sent out to private patients the hospital

charged from £1 11s. 6d. to £2 2s. a week, in addition to their board and lodging, but the nurses were not allowed to participate in the profits. Paying probationers frequently left the hospital to go to other hospitals, generally returning, however, to the London Hospital to complete their education. Under the new agreement it was enacted that probationers could not leave the hospital until their term of agreement was completed, except under special circumstances. She would like to see nurses having shorter hours, longer holidays, and better food, but was of opinion that twelve hours work in a hospital was not too hard for an ordinary woman. The witness then proceeded to read letters received from Miss Scott and Miss Furnace denying the truth of the statements made by previous witnesses, that the writers had been neglected and made to work during illness. In these letters they asserted that they had received nothing but kindness and consideration from the matron and those in authority at the hospital. She had received letters of a similar character from other ladies whose names had been mentioned by these witnesses.

The Committee then adjourned.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABRAHALL, C. W. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Easingwold District, Yorkshire.

ALCOCK, SAMUEL K., M.B. Lond., M.R.C.S., has been appointed Assistant Physician to the North Staffordshire Infirmary.

ARLIDGE, J. T., M.D. Lond., M.R.C.S., has been appointed Honorary Consulting Physician to the North Staffordshire Infirmary.

BARFORD, A. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Oddfellows and United Benefit Societies in Bracknell, Berks.

BETTS, F. BERNARD, M.R.C.S., L.R.C.P., late Obstetric House Physician, Junior House Surgeon, has been appointed Senior House Surgeon to the Westminster Hospital.

CAMPBELL, ALEX., M.D. Aberd., F.R.C.S. Edin., has been appointed Certifying Factory Surgeon for the Western District of Dundee, vice Greig, deceased.

CHAMBERS, A. B., M.D. Univ. Irel., has been reappointed Medical Officer of Health for the Long Eaton Union District and Stapleford District of the Shardlow Union.

CHARLESWORTH, JAS., L.R.C.P., M.R.C.S., has been appointed Assistant Physician to the North Staffordshire Infirmary.

CHILCOTT, A. E., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the St. Mary Abbotts Infirmary, Kensington, vice Van Buren.

COLEMAN, G. E., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Workhouse of the Hemsworth Union.

DAWSON, ERNEST, L.R.C.P. Lond., M.R.C.S., has been appointed Obstetric House Physician to Westminster Hospital.

GANDEVIA, N. B., M.R.C.S., has been appointed Medical Officer of Health for the Shire of Portland, Victoria.

GRAVES, THOS. W., M.R.C.S., has been appointed Medical Officer for the Knighton Urban Sanitary District of the Knighton Union.

GREATBATCH, HERBERT W., M.B., C.M. Edin., has been appointed Junior Assistant Medical Officer to the Montrose Royal Asylum.

HATTON, GEO. S., M.D. Durh., has been appointed Assistant Surgeon to the North Staffordshire Infirmary.

HIND, WHEELTON, M.D. Lond., has been appointed Assistant Surgeon to the North Staffordshire Infirmary.

HODGE, PETER, M.B., C.M. Glasg., has been appointed Parochial Medical Officer for the First District of Glasgow.

JAMES, G. B., M.R.C.S., L.R.C.P., late Junior House Physician, has been appointed Senior House Physician to the Westminster Hospital.

JORDAN, H. M., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to Guy's Hospital.

KEARNEY, JAMES, M.R.C.S., L.S.A., has been appointed Resident Medical Officer to the Royal General Dispensary, vice W. H. Bailey, M.B., resigned.

LANSDOWN, R. G. P., M.B., B.S. Durh., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to Guy's Hospital.

LAWTON, FRED., M.R.C.S., has been appointed Medical Officer of Health for the Shire of Lancefield, Victoria.

LEIGH, JOHN DICKINSON, M.B., L.R.C.P. & S. Edin., L.F.P.S. Glas., has been appointed Resident Surgeon to the Memorial Hospital, Jarrow-on-Tyne, vice H. M. Smellie, M.B., C.M., resigned.

LOXTON, W. A., L.R.C.P., M.R.C.S., has been appointed Honorary Anæsthetist to the Birmingham and Midland Skin and Lock Hospital.

ODELL, THOS., M.R.C.S., has been reappointed Medical Officer for the Third District of the Hertford Union.

OPENSHAW, T. H., M.S., M.B., F.R.C.S. Eng., has been appointed Assistant Surgeon to the London Hospital, vice Walter Rivington, M.S. Lond., F.R.C.S., resigned.

RUTHERFORD, JOHN JAS., M.D. St. And., has been reappointed Medical Officer of Health for the Shipley Urban District.

SADLER, ERNEST A., M.B. Lond., M.R.C.S., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

SALTER, GEO. H., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health for the Shire of Ballarat, Victoria.

STEPHENSON, SYDNEY, M.B., F.R.C.S. Edin., has been reappointed Clinical Assistant to the Royal Westminster Ophthalmic Hospital.

WADE, T. F., L.K.Q.C.P.I., has been appointed Medical Officer to the Hospital at Barraba, New South Wales.

WARD, GEO. S., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Fifth District of the Hertford Union.

WILKIN, G. C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the London Throat Hospital, Great Portland-street, W., vice E. Hughes, resigned.

WILLETT, EDGAR, M.B., F.R.C.S., has been appointed Honorary Surgeon to the British Orphan Asylum, vice W. Allingham, F.R.C.S., resigned.

WILLIAMS, E. H., M.R.C.S., has been reappointed Medical Officer for the Port of Carnarvon.

WOLFENDEN, JAS. J., L.R.C.S.I., has been appointed Medical Officer of Health for the Shire of Kara Kara, Victoria.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon. Salary £40 per annum, with board, lodging and washing.

DOVER HOSPITAL AND DISPENSARY.—House Surgeon, Salary £100 a year, with furnished apartments, board, coal, lights, and attendance.

GENERAL HOSPITAL, Birmingham.—Two Assistant House Surgeons for six months. No salaries, but residence, board, and washing will be provided.

HEXHAM UNION RURAL SANITARY AUTHORITY.—Medical Officer of Health. Salary 200 guineas per annum, which will include travelling and other expenses and disbursements, except forms, postages, and stationery.

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, furnished apartments, coal, gas, and attendance.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house. Also an Ambulance Surgeon for six months. No salary, but hospital practice and certificate of attendance, together with board and lodging, will be given in exchange for services.

LIVERPOOL STANLEY HOSPITAL.—Junior House Surgeon. Salary £70 with board &c.

NEWCASTLE-ON-TYNE DISPENSARY.—Visiting Medical Assistant. Salary £120 per annum.

STOCKPORT INFIRMARY.—Assistant Medical Officer. Salary £70 first year, £80 second year, with board and lodging. Also Assistant to the House Surgeon for six months, with board and residence.

VICTORIA UNIVERSITY, YORKSHIRE COLLEGE, Leeds.—A Demonstrator of Anatomy. Stipend £150. Also a Demonstrator of Physiology.

Births, Marriages, and Deaths.

BIRTHS.

CORSER.—On June 29th, at Bourton-on-the-Water, Gloucestershire, the wife of Francis Richard Sandford Corser, M.B., of a son.

PEARCE.—On July 5th, at Halton, Hurstpierpoint, the wife of Henry Pearce, Surgeon, of a daughter.

PORTER.—On July 8th, at Helmsley, Yorks, the wife of J. Francis Porter, M.D., Coroner, of a son.

TULLIS.—On July 4th, at Palmerston-road, Southsea, the wife of Geo. A. Tullis, M.D., of a son.

VAUGHAN.—On July 3rd, at Crewe Cottage, Crewe, the wife of Alfred E. Vaughan, L.R.C.S., L.R.C.P. Edin., of a daughter.

WELLS.—On June 27th, at Cuckfield, Sussex, the wife of Alfred Ernest Wells, M.D., of a son.

MARRIAGES.

BADGER—WRIFORD.—On July 3rd, at St. Peter's, Bournemouth, William Badger, M.B., C.M., of Penicuik, Midlothian, to Edith Mary, eldest daughter of Lieut.-Colonel G. H. Wriford, late of the Royal Marine Artillery, of Berkeley, Bournemouth.

DYER—STEEL.—On July 5th, at St. Michael's, Blackheath Park, Bernard Dyer, B.Sc., F.C.S., F.I.S., of Rawdon, Arkwright-road, Hampstead, to Edith, third daughter of Thomas James Steel, of Fairlawn, Blackheath.

PENNEFATHER—FREYER.—On April 30th, at St. Bartholomew's Church, Dublin, Dr. Richard Dymock Pennefather, youngest son of the late Richard Pennefather, Esq., of Lakefield and Rathcannon, county Tipperary, to Annie Kelso, daughter of Samuel Freyer, Esq., Silloma, county Galway.

SIMMONS—ROYSTON.—On June 3rd, at St. John's Church, Maritzburg, Natal, Herbert Charles Simmons, M.R.C.S., L.R.C.P., of Standerton, S.A.R., the third son of R. D. Simmons, of Carleton-road, Tufnell-park, and of Upper Thames-street, to Georgetta, youngest child of the late George Royston, of Maritzburg, and formerly of King's Lynn, Norfolk.

DEATHS.

CHADWICK.—On July 5th, at Park Cottage, East Sheen, Sir Edwin Chadwick, K.C.B., in his 91st year.

GOOD.—On July 1st, at Birkenshaw, Yorkshire, suddenly, Surgeon-Major James Good, aged 56.

MULOCK.—On July 1st, at Aix-les-Bains, Edward Ross Mulock, Staff-Surgeon H.M.S. *Assistance*, son of the late Thomas Mulock, Esq., of Kilnagarna, King's County, in the 44th year of his age.

STARK.—On July 2nd, at Nairn, N.B., James Stark, M.D., F.R.C.P. Edin

WRIGHT.—On June 13th, at Harfield, Claremont, Cape Town, John Wright, M.D., J.P., aged 66.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Dental Surgery: including Special Anatomy and Pathology. A Manual for Students and Practitioners. By Henry Sewill, M.R.C.S., L.D.S. Eng. Third Edition. 1890. pp. 400.

BELL, GEORGE, & SONS, York-street, Covent-garden, London.
Lectures on Physiology, Hygiene, &c. For Hospital and Home Nursing. By C. E. Fitz-Gerald, M.D. 1890. pp. 157.

BLACK, ADAM & CHARLES, Edinburgh.
The Collected Writings of Thomas De Quincey. New and Enlarged Edition. By David Masson. Vol. IX.: Political Economy and Politics. 1890. pp. 444.

DOIN, OCTAVE, Paris.
Congrès International d'Hydrologie et de Climatologie. Compte Rendu de la Deuxième Session; Paris. 1889. pp. 503.

GRIFFIN, CHAS., & CO., Exeter-street, Strand, London.
Sewage Disposal Works: a Guide to the Construction of Works for the Prevention of the Pollution by Sewage of Rivers and Estuaries. By W. Santo-Crimp. With Tables, Illustrations in the Text, and Plates. 1890. pp. 277.

GRIFFITH, FARRAN, & CO., Charing-cross-road, London.
Our Lord's Miracles of Healing considered in relation to some Modern Objections and to Medical Science. By T. W. Belcher, D.D., D.M. With Preface by the Most Rev. R. C. Trench, D.D., Lord Archbishop of Dublin. Second Edition, revised and enlarged. pp. 264.

HADDON, JOHN, & CO., Bouverie-street, Fleet-street, London.
"An Unlucky Lie." By Athol A. Johnstone, F.R.C.S. Second Edition. 1890. pp. 78. Price 1s.

HARRISON & SONS, Pall Mall, London.
A Pharmacopœia for Diseases of the Skin, containing a concise Formula, Baths, Rules of Diet, Classification, and Therapeutical Index. Edited by James Startin. Second Edition. 1890. pp. 35.

KEGAN PAUL, TRENCH, & CO., Ludgate-hill, London.
Text-book of Physiological and Pathological Chemistry, in Twenty-one Lectures for Physicians and Students. By G. Bunge. Translated from the Second German Edition by the late L. C. Wooldridge, M.D., D.Sc. 1890. pp. 469.

LEWIS, H. K., Gower-street, London.
Hygiene and Public Health. By L. C. Parkes, M.D. Second Edition. With Illustrations. 1890. pp. 485.
Masso-therapeutics; or, Massage as a Mode of Treatment. By William Murrell, M.D., F.R.C.P. Fifth Edition. 1890. pp. 264.

LIPPINCOTT, J. B., CO., Philadelphia.
Cyclopædia of the Diseases of Children, Medical and Surgical. Edited by J. M. Keating, M.D. Vol. III. Illustrated. 1890. pp. 1371.

SIMPKIN, MARSHALL, & CO., London.
The Retrospect of Medicine. A Half-yearly Journal, edited by Jas. Braithwaite, M.D. Lond. Vol. CI. January—June, 1890. pp. 483.

SMITH, ELDER, & CO., Waterloo-place, London.
Dictionary of National Biography. Edited by Leslie Stephen and Sidney Lee. Vol. XXIII.: Gray—Haighton. 1890. pp. 448.

THACKER & CO., 87, Newgate-street, London.
The Indian Medical Service. A Guide for intending Candidates for Commissions, and for the Junior Officers of the Service. By W. W. Webb, M.B., Surgeon, Bengal Army, 1890. pp. 146.

Index-Medicus: Authors and Subjects, Vol. XII., No. 5, May, 1890 (Trübner & Co., and Lewis, London).—An Address on the Construction of Educational Systems; by Isambard Owen, M.D., M.A. (Oswestry and Border Counties Advertiser Office, 1890).—Die Untersuchung der hinteren Larynxwand; von Dr. G. Killian (Gustav Fischer, Jena, 1890).—Die Protozoen als Krankheitserreger; von Dr. L. Pfeiffer (Gustav Fischer, Jena, 1890).—Burdett's Hospital Annual, 1890; edited by H. C. Burdett (The Hospital, Limited, 140, Strand, London).—Mad Doctors; by One of them (Swan Sonnenschein & Co., London, 1890); price 1s.—Lehrbuch der Chemischen Untersuchungsmethoden zur Diagnostik Innerer Krankheiten; von Dr. Felix Wesener (F. Wreden, Berlin, and Williams and Norgate, London, 1890).—Grundriss der Bakterienkunde; von Dr. Carl Fraenkel; Dritte Auflage (A. Hirschwald, Berlin, 1890).—Mikrophotographischer Atlas der Bakterienkunde; von Dr. Carl Fraenkel und Dr. Richd. Pfeiffer; Siebente Lieferung (A. Hirschwald, Berlin, 1890).—Mind and Matter: Two Lectures, by Owen Barnard, M.A., M.B. (J. Heywood, Manchester and London); price 1s.—The Satellite of the Annual of the Universal Medical Sciences: a monthly Review; edited by C. E. Sajous, M.D., assisted by C. S. Witherstine, M.S., M.D.; Vol. III., May, 1890 (F. A. Davis, Philadelphia).—The Printing Times and Lithographer, June, 1890 (17, Gracechurch-street, London).—Where to Go for a Healthy Holiday, Summer or Winter: the Holiday Number of the "London Medical Recorder" (W. H. Allen & Co., London); price 1s.—Revue d'Orthopédie; sous le Direction de MM. le Dr. Kirmisson et le Dr. L. H. Petit (G. Masson, Paris).—Archives de Physiologie Normale et Pathologique; Directeur M. Brown-Séquard; cinquième série, tome ii., No. 3 (G. Masson, Paris).—Revue de Médecine (De certaines Localisations Cardiaques de l'Impaludisme Aigu; par le Dr. G. Rauzier (Felix Alcan, Paris).—Journal of British and Foreign Health Resorts, New Series, July, 1890 (J. Heywood, London); price 3d.—Magazines for July: Good Words, Sunday at Home, Leisure Hour, Sunday Magazine (Isbister), Boy's Own Paper, Girl's Own Paper (Religious Tract Society), Scribner's, Lippincott's.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, July 10th, 1890.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
July 4	29·87	W.	58	53	105	68	49	·01	Bright
,, 5	29·49	N.E.	51	50	74	59	50	·81	Raining
,, 6	29·76	N.W.	57	53	93	61	50	·40	Cloudy
,, 7	29·96	W.	59	54	111	67	50	..	Hazy
,, 8	29·52	W.	59	57	115	74	54	·27	Raining
,, 9	29·76	W.	61	57	84	64	57	..	Cloudy
,, 10	29·96	N.W.	57	53	115	69	52	·09	Bright

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

NIGHT MEDICAL SERVICE FOR LONDON.

To the Editors of THE LANCET.

SIRS,—Will you kindly afford me space to draw attention once more to the urgent need of the establishment of a medical night service in London and other populous centres? It seems strange that no practical steps have hitherto been taken in this direction. The notion is absurd that the hard-worked practitioner is to be trotted out at all hours of the night, irrespectively of the question of payment or of his health and convenience. I have consulting-rooms near the City, and on Sunday happened to be there at night. Soon after 12 o'clock a man called and asked me to see his child. He had visited four doctors, but could get none of them to leave home. The man was, not unnaturally, in a state bordering on the frantic. I found the child suffering from diarrhœa, and in a very precarious condition. Fortunately, I was able to arouse a chemist in the neighbourhood. The want of a night service is so evident as to scarcely require discussion. The question is, What will be the best means of getting it established with as little delay as possible? I believe the public would not object to a trifling addition to the rates for such a purpose. I am, Sirs, your obedient servant,

July 8th, 1890. PRO BONO PUBLICO.

Passman.—The termination "itis" does not necessarily signify "inflammation," as commonly stated in text-books. It is applied to morbid conditions in general. "Phrenitis," for example, in the Hippocratic books, means not only inflammation of the brain, but includes every acute disease whose course is essentially marked by cerebral disturbance. See Haeser's "Grundiss der Geschichte der Medicin," pp. 28-30.

Mr. Henry Taylor.—We think the discussion had better now cease.

"A CASE OF PNEUMONIA."

To the Editors of THE LANCET.

SIRS,—The case of pneumonia related from Hull in your issue of June 28th, p. 1425, as exceptionally rapid in convalescence, is no doubt well worthy of publication. The strangest part of the matter is, however, that it should be held as so very exceptional. I have seen the like over and over again in uncomplicated cases in young men and in children, and fully believe it to be the natural history of the ailment—that is to say, cough and expectoration almost *nil*, and perfect recovery in a very few days. Quinine is no doubt serviceable, so also is morphia frequently, and alkaline salts and diaphoretics perhaps always. The main remedies are, however, milk diet, a copious supply of water to drink, and rigid abstinence from all forms of alcohol.

I am, Sirs, yours faithfully,

June, 1890. F.

"F. H. TEMPERATURE CHART."

THERE is not much scope for variety in the mere form in which a temperature chart should be drawn up. The present form, sets of which may be obtained of Mr. C. E. Gray, 32, Kennington-park-road, permits of the record of three observations per diem, and the shading of the portion below the normal limit is useful. The range is from 85° to 108° F., and space is left not only for the record of the pulse and respiration, but for a statement of the condition of the skin, urine, and bowels, the occurrence of vomiting, and the weight of the patient. Yet withal the size of the chart is kept within convenient and useful dimensions.

Gorleston.—The case is complicated, both practitioners having previously attended the patient, both being honourable men, wishful to help each other in emergencies, and neither being properly and formally engaged. The proper course will be to divide the fee, and urge on the patient in future to make up her mind sooner.

Mr. Thomas E. Amyot.—Our correspondent's suggestion shall receive attention.

SUITABILITY OF CERTAIN CLIMATES FOR PHTHISIS.

To the Editors of THE LANCET.

SIRS,—A patient of mine who is suffering from phthisis, and who is quite unable to stay in England during the winter months, has an opportunity of obtaining an appointment in one of the following Crown colonies—Ceylon, Hong Kong, British Guiana, Fiji, the Bahamas, The Leeward Islands, the Windward Islands, Barbados, Basutoland, or Bechuanaland. As it is impossible to form a sound opinion of the merits or demerits of a climate without personal experience, and having had personal experience, and that of an intermittent and transient nature, of one only of these colonies—viz., Ceylon,—I should feel much obliged if any of your readers who have had experience of any of them would kindly give me their assistance in this matter by expressing their personal opinion as to the suitability of such of these climates as have come under their notice to phthisical patients as a permanency. Of course, a warm yet bracing atmosphere and plenty of sea-air are desirable. I think Ceylon, and also Hong Kong from what I have heard of the climate, would be too relaxing. But I should imagine that some of these small islands might, from the very fact of their being small, be very suitable.

I am, Sirs, yours faithfully,

July 3rd, 1890. P. & O.

CONCURRENT CHICKEN-POX AND SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—Two cases have just now come under my notice that are, I think, somewhat interesting from their, so far as I have learnt, novel character.

There is an epidemic of chicken-pox amongst a number of people I attend, and in the two cases I refer to it is unmistakably combined with scarlatina. I have had a fair experience of fevers, and cannot doubt that the "roughened blush" can, when associated with sore-throat and high temperature, be mistaken for anything else. The patients, aged respectively six and seven years, are both females, and the children of parents very intimate with each other, and living in adjoining streets. In the former case, although the rash is almost universal, the other scarlatinal symptoms are not so severe as in the latter. It is because it is believed amongst medical men that specific diseases do not coexist that I desire to publish the above cases.

I am, Sirs, yours faithfully,

RICHD. HARRISON, L.R.C.P. & S.Ed.

Neasden, N.W., July 2nd, 1890.

THE R. H. S. CARPENTER MEMORIAL FUND.

To the Editors of THE LANCET.

SIRS,—I beg to trespass again upon your space for the purpose of acknowledging some additional subscriptions received by me on behalf of the above fund.

Already acknowledged ..	£11	5	6	Dr. Abraham Cohen ..	£1	1	0
Mr. Lawson Tait	5	5	0	Mr. Weddal Thomas ..	1	1	0
Mr. T. Richardson ..	2	2	0	Dr. Charles G. Woods ..	0	10	0

I have also received letters with promises of support from several other gentlemen. I earnestly trust that many others will communicate with me before I am compelled to close the account.

I am, Sirs, yours faithfully,

JOHN PAGE HENTSCH.

201, Southampton-street, Camberwell, S.E., July 8th, 1890.

DIPHTHERIA AND CROUP.

To the Editors of THE LANCET.

SIRS,—I beg for permission to make the following corrections in the letter I addressed to you last week. In the sentence where I allude to doubtful laryngeal cases with no expectoration &c., the words "no *pharyngeal* symptoms" should be read, instead of "no laryngeal symptoms"; and the last three words of the letter should be "*the* [not "its"] known contagion." I would further ask to substitute the words "a large number of" for "nearly all" in the sentence where I state my opinion as to membranous croup in its relation to diphtheria.

I am, Sirs, yours truly,

July 7th, 1890. H. B. DONKIN.

THE DRUG BILL.

TO the general practitioner who deems it necessary to dispense his own medicines the amount of the drug bill is always an important item in the year's expenses. The practice of dispensing is not one which we recommend when it can be avoided, but it is unfortunately a matter which is largely beyond the control of the practitioner. In some districts patients are scarcely satisfied if they are required to pay for attendance and advice. They prefer to have medicine included in the charges, and this preference is extremely difficult to contend against when an old-established practice changes hands. The drug bill, therefore, too frequently becomes one of the necessary expenses incidental to practice—as inevitable as the outlay for horse and trap. In hard times every item is apt to be regarded rather closely with a view to economy; hence a complaint which has reached us from a correspondent appears perfectly legitimate. He asserts that it is the habit of some druggists to "swell" the orders by 50 per cent. or so, and he quotes from an invoice instances where 1 lb. which was ordered appears with respect to different drugs as 1 lb. 6 oz., 1 lb. 8 oz., 1 lb. 4 oz., and so on, while ½ lb. becomes 10 oz. or 12 oz. When he has addressed remonstrances the explanation he has received is that "the bottles hold just so much, and that the druggists did not like to send them partially filled." With fluids of different specific gravity it is, of course, difficult always to select bottles which shall, when filled, contain exactly the amount ordered; still, it is not necessary that the bottles should always be filled, nor is it to the interest of the druggist to cause dissatisfaction by swelling the orders by any such device. When frequently practised, this must inevitably lead to loss of confidence and transference of custom.

Dr. Stewart Lockie.—We believe the filter can be procured through Mr. Griffin of Garrick-street, or Mr. F. E. Becker of Hatton-wall, Hatton-garden.

HOW TO FIT VULCANITE PESSARIES.

To the Editors of THE LANCET.

SIRS,—I do not think it is generally known that any form of vulcanite pessary can be modified by being softened for a few minutes previously in boiling water, and when curved to satisfaction dipped immediately into cold water, when it will retain the shape given. The usual directions found in the text-books are, "to smear the pessary with oil or vaseline, and hold over the flame of a spirit-lamp." Not having seen any allusion to the plan I speak of in any of the text-books, and finding it so useful in everyday practice, must be my excuse for asking you to publish this short letter. I am, Sirs, yours faithfully,

Dublin, July 5th, 1890. ALEXANDER DUKE, F.K.Q.C.P.I., &c.

HAIR-DYES.

To the Editors of THE LANCET.

SIRS,—Can any of your readers recommend a formula for a hair-dye containing no mineral ingredient, which will change grey hair to a dark brown? Will it also dye the skin? A patient under my care insists on using hair-dyes, and I only desire to prevent his applying a deleterious preparation. I am, Sirs, yours obediently,

July 9th, 1890. M.D.

ERRATUM.—In the annotation under the heading "The Lords' Committee and Lock Hospitals," at page 33 of our last issue, line 37 from top of second column, by an obvious printer's error the word "general" was substituted for *venereal*.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Heywood Smith, London; Dr. B. W. Richardson, London; Mr. Christopher Heath, London; Mr. Lawson Tait, Birmingham; Mr. H. Nelson Hardy, Dulwich; Mr. Lennox Browne; Mr. More Madden; Mr. John Morgan, London; Prof. C. Ruata, Perugia; Mr. Alex. Duke, Dublin; Mr. C. O'Sullivan, Walworth; Mr. Kislingburg; Mr. G. A. Hawkins Ambler, Kirkburton; Dr. MacQueen, Eastbourne; Dr. Wm. Wilfrid Webb, Netley; Dr. H. B. Donkin, London; Messrs. Brooks, Peel, and Co., London; Mr. W. H. Battle, London; Mr. H. Prior Beale, Cape Town; Dr. J. E. Squire, London; Messrs. Kegan Paul, Trench, and Co., London; Dr. R. R. Rentoul, Liverpool; Messrs. Collinson and Viney, London; Mr. G. Blakeley, Commander R.N.; Mr. T. Hart Smith, Epsom; Mr. Walker, Norfolk; Mr. Wm. Horrocks; Mr. B. Von Homeyen, Berlin; Dr. T. F. Pearce, Southsea; Messrs. Hewlett and Sons, London; Messrs. J. Richardson, Leicester; Messrs. Upperton and Bacon, Brighton; Mr. C. H. Leet, Bootle; Messrs. Maw, Son, and Thompson, London; Mr. Shawfield, Liverpool; Mr. Henbeck, Great Yarmouth; Mr. Scarr, Yorks; Mr. Cripps, Dover; Mr. Leonard, South Wales; Dr. Osburne, Hythe; Mr. Bernard, Burton; Messrs. Keith and Co., Edinburgh; Mr. Watt, London; Major Kirwan; Dr. Nathan Raw, Portsmouth; Mr. Sisson, Newcastle-on-Tyne; Messrs. Mertens and Co., London; Mr. Batty, Hexham; Messrs. Wright, Dain, and Co., London; Mr. Elwin, Dover; Mr. Evans, Swansea; Dr. Philip Boobbyer, Nottingham; Mr. Thomlinson, Glasgow; Messrs. Tayler and Co., London; Mr. W. Scott, Durham; Mr. D. C. Marks; Dr. Edgar

Stevenson, Strassburg; Mr. Hutchinson, Chipping; Dr. Stewart Locke, Carlisle; Mr. Symons, Dumfries; Mr. Du Buisson, Tunbridge Wells; Mr. N. E. Yorke-Davies; Dr. Ahem, Canada; Mr. Augustus J. Harvey, Fulham; Messrs. Sells, London; Messrs. Robertson and Scott, Edinburgh; Mr. Jas. Robertson, Edinburgh; Mr. T. Preston Eastling; Mr. F. W. Cory, Bournemouth; Messrs. Smith, Elder, and Co., London; Mr. A. G. Miller, Edinburgh; Mr. A. S. Barling, North Staffs Infirmary; Mr. J. G. Nestlake, Bristol; Messrs. Orridge and Co., London; Mr. J. P. Hentsch; Mr. Jackson, Holbeach; Mr. John A. Manton, Sheffield; Mr. Huish, London; Dr. Brushfield, Budleigh Salterton; Mr. Wheeler, Manchester; Messrs. Reynolds and Branson, Leeds; Mr. Hornibrook, London; Dr. Hilliard, Aylesbury; Mr. G. S. Flint, London; Messrs. Margrave Bros., Llanelly; Messrs. Blondeau et Cie.; Mr. Andrew, Stockport; A., Swansea; Liverpool Northern Hospital; Beta, London; Zeta, London; Walthamstow; Yorkshire College, Leeds; L.R.C.S.; X. Y. Z.; H. P. D., London; Pulsometer Engineering Co., London; M., London; M., Poland-street; *Yorkshire Post*; B. Y. X., London; S.; Gorleston; Medicus, London; Pro Bono Publico; Morris Tube Co., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Thin, Edinburgh; Mr. Gregg, Dundee; Mr. Branthwaite; Messrs. Parry and Co., Wrexham; Mr. Tully, Hastings; Mr. Langworthy, South Devon; Mr. Haward, Hitchin; Miss Ungent, Wallingford; Mr. Van Straaten, Chesterfield; Mr. Dixey, Penzance; Mr. Grange, Great Grimsby; Mr. Miller, Bury; Miss Walker, Norfolk; Major Pead, Dulwich; Mr. Cleaver, Cornwall; Mr. Vaughan, Crewe; Mr. Blair, Leeds; Mr. Cropley, Northampton; Dr. Burnet, Manchester; Mr. A. Temple, Herefordshire; Mr. Cowan, Glasgow; Messrs. Robinson and Son, London; Mr. Tyte, Minchinhampton; Messrs. Burgoyne and Co., London; Mr. Box, Scotland; Dr. Ward, Oxford; Messrs. Godwin and Basley, London; Mr. Reymonel, Bombay; Messrs. Knowles and Phillips, London; Mr. Cochrane, Wigtonshire; Messrs. Christy and Co., London; Mr. Cameron, Leeds; Dr. Ball, Hounslow; Dr. Wood, Bromsgrove; Mr. Wright, Derby; Dr. Adams, Croydon; Mr. Reid, London; Mr. Robinson, Sheffield; Mr. Pizzala; Mr. Tomlinson, Glasgow; Mr. Norton, Staplehurst; Mr. Heywood, Manchester; Mrs. Giles, Queensland; M. H., Nottingham; Navy; E. R., Blackburn; Stanley Hospital, Liverpool; Quæstor, Leeds; Epsom, London; Permanency, London; Dr. G., Hunts; S. R., London; Alpha, Bedford; A. M. D., London; J., London; D. S., City-road; Deltoid, London; Sanitas, London; V. P., London; X., London; Sister A., London; Hackney Furnishing Co.; Bose, London; A. W. K., Leeds; Parochial Board of Westrop; Hon. Secretary, Ilfracombe; W. H. G., London; Veritas, London; Medicus, Edinburgh; E. B., Blackburn; Holborough; D., Chelsea; Surgeon, London; B. S., York; A. P., London; C. A. P. O., Hythe; X. Y. Z., London; A. B., Norwood; R. C., Ipswich; Alpha, Suffolk; Grenadier, London; A. B. C., London; Y. F. A., Walbrook; C. B. A., London; Physician, London; Scalpel, London; J. F. E

NEWSPAPERS.—*Liverpool Evening Express, Sheffield Daily Telegraph, Glasgow Herald, Newcastle Chronicle, Western Morning News, City Press, Nottingham Daily Express, Reading Mercury, Builder, Liverpool Mercury, Freeman's Journal, Daily News, Liverpool Daily Post, Scottish Leader, New York Herald (London), Sunday Times, Kilkenny Journal, Evening Telegraph (Dublin), Broad Arrow, Birmingham Daily Gazette, Scotsman, Norfolk Standard, Architect, Yorkshire Post, Liverpool Courier, Weekly Free Press and Aberdeen Herald, Windsor and Eton Express, Hertfordshire Mercury, Chemist and Druggist, West Middlesex Standard, Home Provider, Southern Times (Weymouth), Spectator, Daily Chronicle, Surrey Advertiser, Huddersfield Chronicle, Isle of Wight County Press, Man of the World, Law Journal, Bexley Heath and Erith Observer, Saturday Review, Armagh Guardian, Cork Examiner, West Middlesex Advertiser, Local Government Chronicle, Metropolitan, Bedford Observer, Belfast News Letter, Public Opinion, Alliance News, Kendal Mercury, Hastings News, Society Times, Guy's Hospital Gazette, Hereford Times, Halifax Courier, Grantham Journal, Devon Weekly Times, Worcestershire Advertiser, Salford Chronicle, East End News (Poplar), Seafaring, Le Figaro (Paris), Harwich Advertiser, Queensland Government Gazette, The Schoolmaster, Tunbridge Wells Advertiser, Sussex Daily News, &c.*, have been received.

Medical Diary for the ensuing Week.

Monday, July 14.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

ST. MARK'S HOSPITAL.—Operations, 2.30 P.M.; Tuesday, 2.30 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, July 15.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

Wednesday, July 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, July 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, July 18.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, July 19.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

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